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Imbalance of International Payments

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THE TERMS OF REFERENCE of this report[1] were to ascertain the causes of the imbalance of international payments from which the world has recently been suffering. Since "causes" include policy decisions, which may be criticized from various points of view, it has been thought better in this first approach to limit the enquiry to ascertaining the changes that have in fact occurred in the pattern of international payments. In most of the report this has been narrowed to the differences between the pattern as it existed in the period 1950-mid 1952, or in 1950–51, and the pattern of 1936–38.

It must not be taken to be implied that none of the changes revealed would have taken place if World War II had not occurred. Nor is it implied that any of the changes that have taken place are undesirable. Furthermore, the report must not be taken necessarily to imply any pointers for future policy. For instance, if it appears that a particular factor has been responsible for a big dislocation, it does not follow that a remedy should be found by operating on that factor; the best remedy may lie in introducing offsetting forces by operating on other factors. The relevance of the report for policy consists only in the contribution it may make to a better understanding of the quantitative importance of the various forces that have been at work.

It will be observed that gold plays rather a large part in the analysis of the changes in pattern that have occurred. The author of this report came to his work with no preconception on this matter. Indeed, it was only halfway through his work that the full significance of the changed position of gold was borne in upon him; from this point forward there was no choice but to place emphasis on gold, since there was no other way of describing the larger changes of pattern that have taken place.

The report is necessarily confined to major items of change. It could also be used as a framework for consideration of the smaller items and of policy development.

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[1] This report was prepared by Mr. Harrod while he was an Advisor to the Research Department of the Fund.

Gold

In any investigation into the causes of an imbalance of payments, it is proper to give first consideration to gold, which has for centuries been the principal medium of international settlement.

Under the forces of supply and demand, gold came to have a certain value in relation to goods, which enabled it to function smoothly as a medium of reserve and settlement. This value varied somewhat from time to time under the influence of new discoveries or the exhaustion of existing sources. If gold was becoming more abundant and reserves accumulating, the authorities felt able to have an easy credit policy; this would tend to make prices move upward and the goods value of an ounce of gold downward. Conversely, if on the whole reserves were tight, a deflationary policy would prevail, prices would tend downward, and the goods value of an ounce of gold upward. Thus the goods value of an ounce of gold, and thereby the goods value of the world's monetary gold stock, tended to be adjusted upward or downward so as to enable that monetary stock to do the work required of it. This work was to provide sufficient reserves, by and large, to enable the authorities to feel that they had enough to cover normal expected fluctuations in their balances. Individual countries might always get into trouble, but if the majority of countries felt short, then the deflationary process got to work and adjusted the situation.

After World War I, the gold situation aroused anxiety. It was feared that the annual supply of newly mined gold would be so low as to entail protracted deflation. The acute deflation which followed the spring of 1920 had caused serious unemployment and financial troubles, and the authorities were anxious that a strongly downward trend of prices should not continue indefinitely. Professor Cassel, a leading authority at that time, estimated on the basis of a historical survey that the monetary gold stocks ought to rise at the rate of 3 per cent per annum compound interest to maintain stable prices. Actually, in the period from 1924 to 1929 they grew at the rate of 2¼ per cent per annum; at the same time the volume of world trade increased at 5.7 per cent (average), while its aggregate value increased at only 3.9 per cent.[2] The gold shortage did cause embarrassment; for instance, in 1927 the Federal Reserve System deliberately eased credit in the United States in order to promote a moderate outflow of gold to help other nations. (Its action was subsequently criticized as inappropriate to the domestic situation.) Whether the world gold shortage was in part responsible for the world slump of 1929 remains an unsettled question.

[2] League of Nations, *Review of World Trade, 1938* (Geneva, 1939), p. 60.

The events of 1929–33, in all other respects disastrous, had one good by-product. The devaluation of the dollar, the pound, and other currencies in terms of gold, the great fall of prices even in terms of the devalued currencies, and the unhappy shrinkage in world trade greatly increased world liquidity. In 1924 the monetary gold supply constituted 32 per cent of the annual value of the world's export trade; in 1933 it constituted about 100 per cent;[3] gold held outside the United States alone constituted 60 per cent of the annual value of world trade, including that of the United States.[4] Furthermore, the stocks of gold in central banks and treasuries increased at the rate of 6.3 per cent compound interest between January 1, 1933 and December 31, 1938. The increment of gold supply alone was enough to finance 6.3 per cent of world trade.

Unhappily, this easement was largely neutralized by an enormous flow of capital to the United States, partly in quest of the high yields then obtainable on U.S. stocks and partly driven across the Atlantic by growing political tension in Europe. This flow of capital had to be financed by gold, and reserves outside the United States were depleted. In 1951 the world's gold outside the United States would suffice to carry only 17 per cent of the world's annual export trade. Between the end of 1945 and the end of 1951 the world's monetary gold stock grew at the rate of only 1.1 per cent per annum.

There were three causes of this great change, of which the first mentioned was also one cause of the other two. (1) By 1950–51, the value of the dollar in terms of goods entering international trade had fallen to about four ninths of its 1937–38 value;[5] but the dollar price of gold remained the same. Consequently, the goods value of an ounce of gold had fallen to about four ninths. (2) By 1950–51 the volume of world trade had risen by about one third;[6] but gold production outside the United States and the U.S.S.R. had fallen from US$928 million to US$762 million. (By contrast, between 1936 and *1940* the production of gold *rose* by one third.) (3) An amount of gold equal to more than half the gold output in the period 1946–51 ($2,667 million out of $4,790 million) has gone into private hoards.

In the past, gold shortage has tended to cause deflation. It has had no such effect recently. In the five years after World War II there were strong basic forces making for inflation, e. g., the need for reconstruction. Monetary considerations would not have been strong enough to outweigh these forces, any more than they are during war itself. Further-

[3] This figure and all that follow exclude gold in the U.S.S.R.

[4] League of Nations, *op. cit.*, and Board of Governors of Federal Reserve System, *Banking and Monetary Statistics* (Washington, 1943).

[5] United Nations, *Monthly Bulletin of Statistics*, August 1952, p. xvii.

[6] *Ibid.*

more, opinion has moved strongly against extreme deflation as an appropriate remedy. It is widely held that deflation should not and, indeed, could not be pushed to the point of causing substantial wage reductions or massive unemployment. And finally, in relation to the gold supply deflation would be of no value in securing an adjustment unless adopted by the United States. The amount of gold that the various nations consider from time to time that they need to hold as a reserve against fluctuation depends on the gold value, which in this period has meant the dollar value, of their foreign trade. If the amount of gold available is fixed, gold can be brought into a better relation to the requirements for it only by a reduction in the gold value of trade. If the dollar price of gold is fixed, a reduction in the gold value of trade will occur only if the dollar value of trade is reduced; that is, if the goods value of the dollar is appreciated. This would mean deflation in the United States itself. Deflations elsewhere would serve only to alter the values of local currencies. To reduce the dollar value of world trade to anything like its prewar level would require a large reduction of U. S. wages. This may be ruled out as not only quite impracticable, but also undesirable. Consequently, it may be affirmed that a readjustment of the value of gold stocks and accessions to requirements for them will not take place by the traditional route of deflation.

But the matter does not rest there. Ruling out one mode of adjustment does not solve the problem. Each nation, finding itself short of reserves, bethinks itself of an alternative remedy, and finds it in direct import restriction. But while the evils of deflation were grave and there is no case for returning to it, it did at least solve the problem of inadequate reserves; by reducing the value of trade as expressed in gold it restored liquidity. Import restriction, on the other hand, although it may temporarily ease the problem of a particular nation and indeed be necessary for it, has no tendency to solve the general problem. In this connection it is entirely beggar-my-neighbor. The total amount of gold being fixed and annual accessions of trifling quantity, what one nation gains by way of replenishment to its reserve, some other loses. It might be argued that if all the nations other than the United States were to push their restrictions so far as to induce an outward flow of gold from the United States, that would be a genuine easement. But to restore their reserves to their prewar relation to trade, they would have to get all the gold out of Fort Knox, and long before that happened the United States would feel herself short. The plain fact of the matter is that, at the present valuation of gold in terms of goods, not all the gold in the world (including that in Fort Knox) is sufficient to provide nations with adequate reserves.

The dollar imbalance is such a prominent evil, and attracts so much

attention, that this more fundamental cause of trouble is likely to be overlooked. Many restrictions are due to the dollar shortage, but by no means all. It may safely be said that when the dollar imbalance is remedied the other evil will remain, unless a specific cure is found, and will continue to give rise to restrictionism.

Suggestions have been made in the past for supplementing an insufficient supply of gold by some gold substitute. One such was the bancor proposed in the British Treasury plan (1943). This plan for bancor contains the following proposal: "Subsequently, after the elapse of the transitional period, quotas should be revised annually in accordance with the running average of each country's actual volume of trade in the three preceding years, rising to a five year average when figures for five postwar years are available." Another proposal was that of the Genoa Conference (1922), that central banks should hold the gold convertible currencies of other nations in lieu of gold. The dollar would be a thoroughly acceptable currency for this purpose, but in present conditions it is as hard to obtain as the gold in Fort Knox. It was partly in consequence of the views propounded at Genoa that sterling came to be widely held as an alternative reserve; the holding of sterling has been adventitiously increased in consequence of the British methods of financing trade during World War II. Although sterling held outside the sterling area is not gold convertible, it has been playing a useful part as a means of international settlement in lieu of gold. The Bank of England report for 1951 states that £463 million was transferred during the course of the year to finance trade both parties to which were outside the sterling and dollar countries; this may be as much as about 6 per cent of the total of such trade. EPU units of account also represent an attempt to fill the lacuna caused by the lack of an adequate gold supply.

While these ad hoc expedients may serve a useful purpose for the time being, there is no doubt that in due course it will be desirable to devise a radical cure for the gold shortage.

The changed relation of the value of newly mined gold to the value of world trade has also played a part of first rate importance in relation to the dollar imbalance, which will be discussed in the next section.

The Dollar

Of all the particular imbalances in the international payments pattern, that between the dollar and other currencies is the greatest. Unfortunately, it is extremely difficult to measure the amount of imbalance existing. Over and above the realized deficit, the continued existence of which has been made possible only through the provision of generous aid by the United States, there is, so to speak, a latent deficit consisting

of the value of all the goods and services which the citizens of various countries would wish to buy from the United States at their existing prices, if only they were not prevented by discriminatory import restrictions from doing so. There is, however, an offsetting factor. It is probable that the aid so generously provided by the United States has led to the purchase of a certain number of goods from the United States, which would not have been purchased in the ordinary course of commerce even in the absence of import restrictions. This aid, in one form or another, grant or credit, has amounted to about $5 billion per annum since the war. Even if only one fifth of this was spent on dollar goods that would not have been purchased in the absence of such aid, this would make an important difference to the size of the realized deficit. We are thus in ignorance of two important quantities, namely, the value of the dollar goods that would have been purchased had there been no discriminatory restrictions, and the value of the dollar goods that were purchased owing to aid granted but that would not have been purchased in the ordinary course of commerce. Ignorance of these two important quantities should lead to a suspension of judgment. It means that we cannot know in advance what measures would be adequate to rectify the situation and must proceed somewhat cautiously by trial and error.

There is a difficulty also in regard to the visible deficit. This was exceedingly heavy in the years from 1945 to 1949. In 1950 there was a spectacular improvement, followed by a relapse, but not to the previous position. The year 1950 was favorable to the rest of the world, partly because the United States was building inventories after the recession of 1949 and partly because the outbreak of the Korean war led to heavy U.S. purchasing abroad. This same purchasing and other events connected with the Korean war set off inflationary tendencies, which were inadequately controlled in certain countries, and led to heavy purchasing from the United States in 1951. It may be held that these conflicting tendencies to some extent offset one another, and that the average of the two years may be taken as a fair indication of the dimensions of our problem. The earlier years were affected by the fact that the productive capacity of the rest of the world had not recovered from the dislocations of war and that inflationary pressures were much stronger than they have been more recently. Thus we may have some measure of confidence that there will not be a relapse into the bad deficits prior to 1950, but at the same time we can only accept the figures for 1950 to mid-1952 *with caution*.

These figures suggest that, as a rough approximation, the imbalance may be thought of as a problem of $2 billion (see Table 1, columns 2 and 4). Such a figure has little meaning considered by itself. It is therefore desirable to consider the U.S. trade figures against the background of

U. S. and world production indices. U. S. production has soared greatly by comparison with the rest of the world (Table 2). While the increase in U. S. productivity is a notable example to the world, it is important not to let exaggerated ideas of the rate of increase suggest that it must lead to recurrent crises of imbalance and the need for successive drastic devaluations. The increase of total U. S. production between 1937–38

TABLE 1. U. S. BALANCE OF PAYMENTS[1]

(In millions of U. S. dollars)

Year	Visible Trade Balance (1)	Balance on Goods and Services (2)	Net Outflow of Private Long-Term Capital (3)	Balance (Col. 2 + Col. 3) (4)
1948	5,524	6,021		
1949	5,271	5,849		
1950	764	1,237		
1951	2,356	3,232		
1952 (first half, annual rate)	2,962	3,370		
1950–first half of 1952 (annual average)	1,840	2,462	−851	1,611

[1] In this table and in all subsequent presentations, items flowing under military aid are excluded. The amounts shown under military aid have recently been running close to the "special category" items which the U. S. Department of Commerce does not show by country of destination for security reasons. (In Table 3, below, special category items, instead of military aid items, are excluded, to obtain comparability with other figures in that table.) It may be assumed that, as long as world conditions remain as they are, these exports will be financed by special methods. It would be misleading to include them in an assessment of the economic disequilibrium. They averaged $1,225 million a year in the two and a half years, 1950–first half of 1952.

Private donations are included in the balance on goods and services. Although not the payment for a service, it seems sensible to include them, since for several decades they have shown little change from year to year. This is a reversion to the older practice of the Department of Commerce, which used to include them in the current account.

"Exports", as defined by the Department of Commerce, include the value of gold transferred from U. S. mines to Fort Knox. Although this appears to be an intrusive item, it has not been thought necessary to exclude it.

and 1951 has been due in greater part to the increase of numbers employed than to the increase of output per man; the former is not likely to be repeated and the latter should be capable of being looked after by upward adjustments of U. S. wages from time to time.

The figures in Table 2 are volume figures, except for the last line, entitled the "level" of U. S. imports. A very important feature in the whole situation has been the deterioration in the U. S. terms of trade. This has caused her surplus on trade account to be considerably less than it would otherwise have been. The "level" of imports is designed to show this; to obtain it, the volume of imports has been multiplied by a coefficient

TABLE 2. INDICES OF INDUSTRIAL PRODUCTION AND U.S. EXPORTS AND IMPORTS, 1948–51

(1937–38 = 100)

	1948	1949	1950	1951
U.S. industrial production[1]	190	175	198	219
World industrial production, excluding U.S. and U.S.S.R.	96.1	107.7	122.2	135.6
Volume of U.S. exports	200	204	169[2]	207[2]
Volume of U.S. imports	124	124	149	146
"Level" of U.S. imports[3]	144	145	196	212

[1] Since agricultural exports are important, the following combined index (1937–38 = 100) of U.S. industrial and agricultural production is of interest:

Year	*Index*	*Year*	*Index*
1948	170	1950	171
1949	162	1951	189

This is an arithmetic average of (1) an index weighting industry and agriculture according to the numbers employed in 1936–38 and (2) an index weighting industry and agriculture according to the numbers employed in 1950–51.

The increase in agricultural production in the outside world appears to have been about 15 per cent.

[2] Excluding "special category" items.

[3] For description of this item, see text.

representing the quantity of U.S. exports required to buy one unit of imports (1937–38 = 1). Tables 2 and 3 show that, contrary to general belief, the value of U.S. imports had by 1950–51 risen fractionally more than the value of her exports. The volume of her exports expanded more than the volume of her imports, but her worsened terms of trade offset this.

It will be noticed that the volume of U.S. exports expanded roughly in line with her production, while the volume of imports accorded more with world production. At first sight it would seem that each area had

TABLE 3. U.S. BALANCE OF TRADE, BY REGIONS[1]

Regions	Exports 1950–51 annual average	Imports 1950–51 annual average	Balance of Trade 1936–38 annual average	Balance of Trade 1950–51 annual average	Balance of Trade as Per Cent of Exports[2] 1936–38	Balance of Trade as Per Cent of Exports[2] 1950–51
	(*1936–38 = 100*)		(*million dollars*)			
World	403	422	480	1,624	16.7	14.1
Canada	498	609	108	174	23.5	7.6
Latin America	601	574	−28	−18	−5.1	−0.5
Non-America	304	285	400	1,468	20.4	24.6
All OEEC countries	293	260	520	1,723	46.1	52.1
United Kingdom	142	231	326	306	65.1	43.1

[1] See Table 1, footnote 1.

[2] The minus figures indicate a negative trade balance.

sent forth exports in proportion to its ability to produce generally. Yet the United States was able to buy all she needed, while the rest of the world had to restrict purchases. Such views have to be seriously modified when we proceed to the broad regional pattern. Volume figures by regions are not available. It has already been stated that between 1937–38 and 1950–51 world trade expanded by about one third in volume, while the dollar prices of world traded goods rose about 2¼ times, so that the dollar value of world trade rose approximately 3 times.

While global U.S. trade expanded more than in proportion to world trade (and world production), this was due entirely to a great growth of trade within the Western Hemisphere, which seems to have drawn closer together in this period. Despite all the aid given, U.S. exports to non-America (including, of course, the goods sent gratis[7]) did not expand more in value than world exports generally.

It is next necessary, for understanding, to compare the U.S. postwar balance with those in earlier periods. As shown in Table 4, the visible surplus of exports in the 1950–52 period is similar percentagewise to the

TABLE 4. U.S. BALANCE OF PAYMENTS ON GOODS AND SERVICES

Period	Trade Balance	Balance on Goods and Services	Trade Balance as Per Cent of Exports	Balance on Goods and Services as Per Cent of Exports
	(*million dollars*)			
1924–29	819	769	16.2	15.2
1933–38	338	267	13.0	10.2
1936–38	480	378	16.7	13.5
1950–first half of 1952	1,840	2,462	14.7	19.6

surplus in earlier periods. There was, however, a sizable change on the side of "services", which were on balance negative in the prewar period and subsequently positive (Table 5). Transportation constitutes the largest item of change; U.S. receipts on transportation account were, however, particularly great in 1951, and it is thought that this figure will not be repeated.

Why a surplus which was not, percentagewise, so much greater than those accruing in earlier periods has caused so much more embarrassment, clearly calls for explanation. It is true that, expressed in dollars, the surplus was very much larger, but so are all other magnitudes in the pattern of world trade.

During the twenties the surplus was wholly covered by the investment of U.S. capital abroad. This would seem to have been a healthy pattern

[7] Except "special category" items.

for a rich and expanding country. It is true that some of the investments then made were ill-advised, but this was not surprising, considering that the United States was making her first experiments in foreign investment on a large scale. It was confidently expected that she would in due course develop sounder methods. Unfortunately, since that time conditions in the outside world have sadly deteriorated. The world slump, political insecurity, World War II, even greater political insecurity thereafter, have not offered an attractive field for foreign investment.

In the thirties the U.S. surplus was paid for by a flow of gold to that country. It is important to emphasize that not merely was the surplus paid for in gold, but it was paid for in gold four times over. The average annual surplus from 1933 through 1938 was $267 million; the average annual flow of gold to the United States during the same period was $1,140 million. This was due to a flow of capital to the United States, which, while justified and reasonable from the point of view of the individuals responsible for it, may be regarded as "perverse" from the point

TABLE 5. CHANGE IN U.S. BALANCE OF PAYMENTS ON SERVICES

	Balance on Services as Per Cent of Exports[1]		Difference (Col. 2 minus Col. 1)
	1936–38 (1)	1950–51 (2)	(3)
Transportation	−2.7	+2.8	+5.5
Travel	−6.1	−2.7	+3.4
Interest, etc.	+10.4	+12.1	+1.7
Private donations	−5.4	−3.7	+1.7
Other	+0.6	−2.9	−3.5
All services	−3.2	+5.6	+8.8

[1] The minus figures indicate a negative services balance, and the plus figures, a positive balance.

The balance might alternatively be considered as a percentage of imports or of the mean of exports and imports. In this case, the alternative methods would yield approximately the same figures, since exports rose to 403 per cent of the 1936–38 average, and imports to 422. See Table 3.

of view of a balanced world. This large flow of gold imposed a strain on other countries and caused their reserves in total to fall, on the average, by $151 million per annum. Had they had to pay in gold for only the actual U.S. surplus on goods and services, they could have done this and still had their own collective reserves rise at the comfortable rate of 3.4 per cent per annum compound interest. They could clearly have paid for a considerably larger U.S. surplus and still remained reasonably comfortable.

It is desirable to consider what the pattern of international payments would have been in 1950–52 had the large change between the value of

new gold accessions and the gold value of world trade not occurred. Since the accessions in the late thirties included some gold from hoards, it is fairer to take production figures for these years, in order to make a comparison. In 1936–38 gold production outside the United States and the U.S.S.R. was $892.3 million (annual average). Suppose that this had increased by 1950–51, in line with world production and trade generally, by one third, viz., to $1,189.7 million. That this is not a fanciful hypothesis is indicated by the fact that by 1940 production had already increased to $1,094 million, and that important new gold discoveries have since been made. From this total subtract 5 per cent, which is the Bank for International Settlements' estimate of absorption by the industrial arts.[8] The remainder is $1,130.2 million. Finally, assume that the dollar price was raised 2¼ times, viz., in line with the rise in the dollar prices of goods entering international trade.[9] This would give an annual value of $2,549.9 million for new gold production outside the United States and the U.S.S.R. available for monetary use.[10] This may be compared with the actual annual U.S. surplus on goods and services account, from 1950 through the first half of 1952, of $2,462 million. It appears that, if new gold supplies had borne their prewar relation to the value of world trade, the rest of the world would have been able to pay for its deficit in 1950–52 without aid;[11] but the position would have been unsatisfactory and indeed somewhat strained, as the rest of the world would not have been able to add to its reserves. But if the outflow from the United States of private long-term capital of $851 million per annum is brought into the reckoning, the rest of the world could, as well as paying its deficit with the United States out of its own resources, have added to its gold reserves and/or reduced restrictions on dollar imports.

It should be emphasized that the foregoing paragraph implies no value judgment. It is a mere historical accident that, for some time, the United States has produced a smaller proportion, and the rest of the world a larger proportion, of the medium which has for centuries been used as money. There is no moral obligation upon the United States to add more than she wishes to her gold reserves. We are concerned solely with the fact that there has been a change of great magnitude involving a disturbance in the prewar pattern and the need for adjustment. Other disturbances have also occurred, of which the worsening in the U.S.

[8] *Seventh Annual Report*, p. 41, and *Eighth Annual Report*, p. 43 (Basle, 1937 and 1938).

[9] It is fair to add that the unit value of U.S. exports had not quite doubled. This disparity between the unit value of U.S. exports and the unit value (dollars) of world exports reflects the worsening of the U.S. terms of trade which has already been noted and brought into the reckoning.

[10] If the price of gold were only doubled, this figure would be $2,260.4 million.

[11] Apart from military aid items.

terms of trade has already been cited. There have been various shifts in the supply and demand for various particular categories of goods—such as grain and industrial equipment. It may safely be said that none of the shifts in individual categories of commodity trade (which are shown in Table D, Col. 4, page 40) are of comparable order of importance to the change in the gold situation. Its effects therefore should be observed carefully. The rest of the world will have to find acceptable goods to send to the United States in lieu of gold, or, alternatively, to buy correspondingly less from the United States.

It could be argued that the United States, by increasing her importation of other commodities (or the prices she has paid for them), has in fact made good the loss to the world resulting from the diminished flow of gold to her. But it has already been noted that this increase lay wholly in her imports from the Western Hemisphere. The dollar value of U.S. imports from non-America increased slightly less than in proportion to the growth of world production and trade. Thus non-America has not had an increased flow of dollars (other than by aid) which could fill the gap in the means of settling with the United States created by the great shrinkage of gold. The possibility of non-America capturing some of the additional U.S. dollars made available to Canada and Latin America by increased U.S. importation is discussed below.

Both before and since World War II, the deficit of the OEEC countries in trade with the United States was greater than that of the whole world including OEEC Europe (see Table 3). This was partly offset by contra items on services account (Table 6). It follows that if, owing to the shrinkage, to a trifling quantity, of the supply of newly mined gold available as money, the rest of the world will have to learn to live in balance with the United States (instead of having a running deficit of the order of 15 per cent), the main burden of adjustment must fall on OEEC Europe. Before the war OEEC Europe, by having surpluses with gold-producing countries or by obtaining gold in multilateral exchange, was able to pay her heavy direct deficit to the United States in gold. This was a natural pattern, since Europe has a number of requirements she can best meet in the United States, while her manufactured products are more suitable for sale in third party markets. This makes the adjustment now required more difficult. If the deficit of the world with the United States had been fairly evenly distributed among the various regions, being about 15 per cent everywhere, no doubt its elimination would have presented a difficult problem, especially at a time when the world has become much more dependent on certain U.S. supplies and desirous of others; but it is much more difficult for a particular region (Europe) to eliminate a deficit as large as about 40 per cent. One has to cut more deeply into the established pattern of interchange.

It should be noted that the U.K. development differs somewhat from that of Europe as a whole. The rather poor showing of her exports to the United States in 1950–51 (see Table 3) was due partly to a real loss of entrepôt exports and partly to a mere statistical change by which the U.S. Department of Commerce, from whose returns all these figures are derived, altered its method of classification; in 1936, and to some extent also in 1937 and 1938, it showed as coming from the United Kingdom goods whose actual origin was elsewhere, while in 1950–51 they are shown by their countries of origin. This means that the true U.K. deficit on visible trade account in respect of her own products was, in 1936–38, substantially greater than 65.1 per cent, and that makes her present problem of adjustment correspondingly more difficult.

The very small rise in the value of U.K. imports from the United States, which represents a large curtailment in the volume of those imports, was due to austerity and import restriction. As her initial percentagewise bilateral deficit with the United States was larger than that of continental Europe, it was needful for her to make more strenuous efforts to move toward bilateral balance.

When services are taken into account the distribution of the U.S. surplus is seen to be modified somewhat. Information is lacking for a regional subdivision of the prewar services balance. Data are, however, available for the OEEC countries in 1937. The subsequent reduction of Europe's favorable balance on services account expressed as a percentage is seen to have some importance as an aggravating factor.

Table 6 indicates that Canada and the Latin American group of

TABLE 6. U.S. BALANCE OF PAYMENTS ON GOODS AND SERVICES, BY REGIONS, 1950–51

Regions	Trade Balance[1]	Services Balance	Balances as Percentages of U.S. Exports to Area[2]		
			Trade[1]	Services	Goods and Services
	(*million dollars*)				
All OEEC countries	+1,775	−441	51.6	−12.8	38.8
Canada	+222	+364	9.5	15.5	25.0
Latin America	−83	+718	−2.7	22.2	19.6
Rest of world	−341	+150	−10.9	4.8	−6.1

[1] Excluding military aid.
[2] The minus figures indicate a negative balance.

countries as a whole, as well as Europe, have had dollar imbalances of substantial proportions, after "services" have been brought into the reckoning. However, the greater part of the outflow of U.S. private capital (see Table 1, col. 3) went to Canada and Latin America. The flow to regions beyond the Western Hemisphere was not of sizable amount.

The movement of capital is too variable for a tabulation covering only two years to be meaningful. It may be noted that the flow of private capital from the United States of Canada in 1950–51 was equal to 23 per cent of U. S. exports to Canada and so almost completely offset the U. S. surplus (25 per cent) on goods and services account. Thus whether Canada proves to have a chronic imbalance against the U. S. dollar will depend on her power to attract a regular flow of capital of this order of magnitude.

The capital flowing to the Latin American group of countries as a whole was smaller in these years, and there was a sizable over-all deficit. The problems, however, of this group are markedly different from that of the European group. It has been seen (Table 3) that in 1950–51 the dollar earnings on trade account of the Latin American group were 574 per cent of the 1936–38 average, while those of the European group were only 260 per cent. Moreover, the Latin American group had a much better bilateral balance than Europe had with the United States before the war. While it may be natural and proper for the Latin American countries to have greatly increased requirements for imports from the United States on account of their capital and general expansion, a moderate curtailment of imports which have risen (in dollar value) nearly six times should not be excessively difficult. It may well be that the true recipe for the imbalance of the Latin American group as a whole lies in the curbing of inflationary tendencies in certain of its members. For the most part, the European problem is of quite a different nature.

Before proceeding to a more detailed scrutiny of the imbalance revealed in Tables 1–7, it may be well to make an observation on the effect of inflation upon external balances. If the aggregate purchasing power released within a nation exceeds its supply potential, not only will there be a tendency for internal prices to rise, or—to the extent that these are

TABLE 7. U. S. BALANCE OF PAYMENTS ON GOODS AND SERVICES WITH OEEC COUNTRIES AND REST OF WORLD

	Trade Balance	Services Balance	Balances as Percentages of U. S. Exports to Area[1]		
	(*million dollars*)		Trade	Services	Goods and Services
OEEC countries					
1937	+505	−228	40.1	−18.1	22.0
1950–51	+1,775[2]	−441	51.6	−12.8	38.8
Rest of world					
1937	+79	+243	3.9	12.0	15.9
1950–51	−202	+1,232	−2.3	14.3	12.0

[1] The minus figures indicate a negative balance.
[2] Excluding military aid.

subjected to control—for waiting lists and bottlenecks to develop, but also there may be a tendency toward excess spending on external account. The external deficit is then a symptom of aggregate internal over-spending. There is no doubt that internal inflations, which were widespread after the war, tended to cause external deficits; to the extent that these inflations were stronger in countries outside the United States than in the United States, there is a ready explanation of the deficit of the rest of the world with the United States. It is probable that in the late forties, when the aggregate world deficit with the United States was running between $5 billion and $10 billion, inflations in other countries could be reckoned as the principal cause of the imbalance.

In the fifties, inflations in most parts of the world have abated considerably, although the events following the Korean outbreak caused some revival of them in certain countries. It may be that some part of the dollar imbalance that has remained has been due to local inflations; continuing vigilance is certainly necessary. But it cannot be argued that because there is external imbalance there *must* be internal inflation, except by some fanciful definition of inflation, which would involve arguing in a circle. Without in the least derogating from the importance of inflation as a persistent cause of imbalance in the postwar years, it may be advisable now to concentrate attention on a quite different cause that has operated to create a major European dollar imbalance, namely, the shrinkage in the value of newly mined gold—to which the shrinkage of invisible income from the United States must be added as a minor cause. Even if Europe had not suffered from any internal inflations, she would still have been under the necessity of finding a new method for paying for some 35 per cent of her normal imports from the United States—or, alternatively, of dispensing with all or part of them. It is clear that such a change-over cannot be effected without great strain and dislocation. The need for making it has no connection with internal inflations and will continue to exist when they have been completely removed. It may be regarded as the hard core of the dollar problem. And it is probable that it constitutes the main part of the dollar problem as it now presents itself.

Europe's Dollar Problem

There are three ways in which Europe can redress her U. S. dollar position; namely, (1) an increase of exports of goods and services to the United States, (2) a decrease of imports of goods and services from the United States, and (3) a capture of dollars in third party markets, in lieu of the gold formerly won there. In a world of fully multilateral trading relations, the third method would be expected to make the largest

contribution. The third party markets can provide U.S. dollars to Europe either through a rise of their sales to the United States or through the substitution of European exports for U.S. exports to those markets. Each of these must be considered in turn.

Europe has made considerable and, to some extent, successful efforts to expand direct sales to the United States. It is in the sphere of finished manufactures principally that one could hope for an expansion of exports by an organized "export drive" or currency devaluation, other categories of goods depending more on the level of U.S. production and national income. The achievement of OEEC countries in 1950–51 is shown by the data in Table 8. Although these index numbers are subject to a

TABLE 8. INDICES OF EXPORTS OF FINISHED MANUFACTURES TO THE UNITED STATES, 1950–51 AVERAGE[1]

(1936–38 = 100)

Exporting Group	Quantum	Unit Value	Total Value of Sales
World	140	253	355
All OEEC countries	187	171	321
United Kingdom	165	191	319
Belgium	144	275	394

[1] These figures exclude such items as wood pulp, newsprint, and sacking. Each figure is the arithmetic average of the two figures for 1950 and 1951.

Source: Federal Reserve Bank of New York, *Pattern of United States Import Trade Since 1923; Some New Index Series and Their Application* (New York, 1952).

margin of error, it can hardly be great enough to invalidate the broad relations displayed. The quantum figure is clearly satisfactory; an 87 per cent expansion may be reckoned as large. But the total value figure is less satisfactory; the OEEC countries kept their dollar prices down in these years. (It is interesting to compare the unit value index of 171 with the unit value index—189—of U.S. exports of finished manufactures in the same period.[12]) The total dollar proceeds of these European sales to the United States rose less than those of other countries because the prices of European goods rose less. The Belgian data in Table 8, however, show a somewhat different pattern.

Table 8 may be interpreted in one of two ways, each of which has an unsatisfactory moral. On the one hand, it may be that the OEEC group has made a mistake in policy in charging such low prices (a process which the devaluations of 1949 assisted), and would have gained more in total dollar receipts if it had sustained its selling prices at a higher level. This, if true, would be unsatisfactory, as all efforts in Europe are now addressed to paring down export prices by higher efficiency of output, and

[12] Based on data from *The Midyear Economic Report to the President, July 1952* (Washington, 1952).

it will be unfortunate if these efforts merely lead to a loss of total dollar receipts. On the other hand, it may be that the OEEC group has been quite right in keeping prices down, and that it would have lost its markets in the United States rapidly, had it failed to do so. But this is also unsatisfactory. For what it must mean, taken in relation to Table 8, is that the kind of manufactures which the OEEC countries are able to furnish to the United States, and which may consist largely of articles that differ from other U. S. imports of finished manufactures, find less easy access or sale in the United States than the manufactures drawn from other countries. Further consideration of this point would require an analysis article by article.

Total OEEC exports to the United States have risen less since 1936–38 (160 per cent) than exports of finished manufactures (221 per cent). Exports of crude foodstuffs fell 23.2 per cent in volume, materials rose only 19.3 per cent, manufactured foodstuffs fell 11 per cent, while beverages rose 55 per cent.

It is in place here to consider the more general question of the expansibility of U. S. imports. The Federal Reserve Bank of New York has made an analysis of the elasticity of demand for imports in the United States.[13] While its methods and conclusions will no doubt be criticized from various points of view, its broad conclusion will probably be accepted; namely, that all categories other than finished manufactures depend more on the level of production and national income in the United States than on their relative prices. On the other hand, for finished manufactures the report finds responsiveness to price. Thus, while the rest of the world may expect an upward trend of total U. S. imports—and the findings of the President's Materials Policy Commission[14] suggest an acceleration in the more remote future—it is only in the sphere of finished manufactures that it would be possible to obtain a quick expansion by such methods as price competition.

The Reserve Bank study gives various figures for the "price elasticity" of U. S. demand for finished manufactures from the OEEC countries, of which 2.5 may be chosen as representative. It may well be that this is too optimistic since it depends on observations in the depression years; no such responsiveness was found in the twenties. If the figure of 2.5 is applied to OEEC exports of finished manufactures to the United States in 1950–51 ($641 million per annum), and if a reduction of 30 per cent in the average of prices charged is assumed, the value of U. S. imports of these goods from Europe would rise by only $144 million.[15]

[13] *The Pattern of United States Import Trade Since 1923; Some New Index Series and Their Application* (New York, 1952).

[14] *Resources for Freedom: Vol. I, Foundations for Growth and Security* (Washington, 1952).

[15] Let 1 stand for unit values before the price concession and 0.7 for unit values

This increase, based on two extremely optimistic assumptions, would still not make an important contribution to closing the European dollar gap. It is probably not legitimate to apply the Reserve Bank's elasticity coefficient to U. S. imports of manufactures from *all* quarters ($1,195 million per annum). Even if this could be done, it would still yield an increase in U. S. imports of only $269 million.

Although these calculations are highly precarious in detail, the broad inference is safe; namely, that the contribution to closing the $2 billion gap that can be achieved by foreign exporters' stimulating sales to the U. S. market by price concessions, including devaluations, is small.

It does not follow that these figures show the limit of the possibility of increased sales to the U. S. market. If sales could be increased by methods other than price concessions, or by methods in which price concessions played only a minor role—e.g., by more diligent study of the needs of the U. S. market, the offer of more prompt delivery, and better servicing—larger increases of proceeds might be possible.

Finally, a word should be said about the U. S. tariff. Given the elasticity of demand, a larger rectification of the balance could be gained by a given percentage average reduction of the tariff than by an equal percentage devaluation by all other countries. Assuming once again the Reserve Bank's coefficient of 2.5, an average tariff cut of 10 per cent of the value of finished manufactures would increase U. S. imports of those manufactures by double the amount that would result from an effective devaluation of 10 per cent by all other countries.

The upshot of these considerations is that the $2 billion gap is not likely to be greatly reduced *in the near future* by an increase of U. S. imports. Over a longer term, prospects are more hopeful, owing to the prospective rise of U. S. production and gross national income. Consequently, if the dollar gap is to be closed in the near future, it will mean a large curtailment of U. S. exports. For Europe this will mean either a curtailment of direct imports from the United States or a displacement of U. S. exports by equivalent European commodities, as a result of keen competition in third party markets.

The figures for European imports (Table 9) show, on the whole, that continental Europe has used aid for what it was intended. The great increases since 1938 in imports of electrical and industrial machinery and chemicals are examples. These figures suggest that when programs of industrial expansion fostered by U. S. aid come to an end, the European deficit will fall substantially. On the other hand, the notable increases in imports of agricultural products by continental Europe were due to a

after the 30 per cent concession; if demand elasticity is 2.5, the volume of sales will rise from 1 to 1.75. The sales proceeds in the new situation will be 1.75×0.7, or 1.225 times the previous proceeds, an increase of 22.5 per cent.

TABLE 9. EUROPEAN IMPORTS FROM THE UNITED STATES, 1950–51 AVERAGE

	Total Value (*million dollars*)	Indices (1938 = 100)			
		United Kingdom	OEEC countries excluding U.K.	France, Germany, Italy, Belgium, Luxembourg	All OEEC countries
Food	756.1	116	452	600	281
Machinery and vehicles	620.5	123	437	600	333
Electrical and industrial machinery	395.5	143	981	1,144	541
Cotton	567.0	243	587	560	469
Tobacco	231.1	103	552	723	174
Chemicals	173.4	277	529	470	633
Coal	143.6	—[1]	—[1]	—[1]	—[1]
Petroleum	127.0	116	59	104	75
Textile manufactures	97.7	107	640	490	440
Iron and steel mill products	89.7	69	321	262	235
Vegetable oils and oilseeds, inedible	84.6	—[1]	—[1]	—[1]	—[1]

[1] Prewar imports were negligible.

shift in the balance of world supplies, which will be discussed later. Coal imports should end.

The much stricter curtailment of imports practiced by the United Kingdom in contrast to continental Europe is shown clearly by Table 9. It is worth observing that, if the OEEC group as a whole had followed the U.K. policy and not allowed its prewar dollar imports to rise by more than 42 per cent, its dollar imports in 1950–51 would have been $1,704 million per annum less than they were in fact, and there would have been no realized dollar deficit on account of the OEEC group. This is not intended to imply that the continental countries ought to have done this.

The question of the "latent" dollar deficit has been raised earlier (see pp. 5–6). On the one side, there are the goods that would be imported from the United States in the absence of restrictions; on the other, there are those imports from the United States which have been stimulated by U. S. aid and would not have flowed under ordinary commercial motives. The figures suggest that the United Kingdom has a "latent" deficit. With continental Europe it may be the other way round. Imports of machinery, etc., may have been stimulated beyond normal by the European Recovery Program; the large increase in the imports of textile manufactures into continental Europe, although not quantitatively very important, may be taken as a pointer. It is hard to believe that, if the authorities were denying their citizens many urgently needed dollar goods by import restrictions, they would have allowed so large an increase of dollar textile manufactures.

While restriction is the method available for quick action to curtail U. S. imports, an alternative method at longer term is to stimulate the production in third party countries of commodities now imported from the United States. If Europe is to become dollar solvent in the near future, she will either have to curtail greatly her direct dollar imports, by comparison with 1950–51, or capture dollars by displacing U. S. exports from third party markets. It has already been indicated that it is not likely that additional dollars will be available in sufficient quantities by an increase of third party sales to the United States, although this may be the ultimate solution over a longish term of years. Consequently, if sufficient dollars are to be captured in third party markets at an early date, it must be principally by a displacement of U. S. exports. It is important to emphasize this point, because the achievement of equilibrium is sometimes represented in a rather different light. Mr. A. Maffry, for instance, writes in an authoritative article[16] with reference to the advantages of the restoration of international equilibrium, including the dismantling of restrictions and the convertibility of currencies, "for the United States it would mean lifting the burden of various forms of assistance to foreign countries and giving much greater freedom to American exporters in seeking foreign markets." The former point is of course correct. But the latter suggests that there would be an easement and a possibility of expansion for U. S. exporters. The reverse is the case unless equilibrium is achieved wholly by an increase of U. S. imports. It is quite true that when equilibrium was achieved, there would be no need for restrictions and inconvertibilities. But the essence of the equilibrium is that Europe should have balanced her accounts, and that means—apart again from a sufficient increase of U. S. imports—that, by whatever method of price competition, sales pushing, or market study, Europeans should have established themselves securely in a large part of the markets that the United States now enjoys. The United States would be debarred from these markets just as much after the equilibrium was established as now. The difference would be that, instead of being debarred by legal restriction, she would be debarred by prices that were so low or sales campaigns that were so aggressive that she would be unable to compete against them. The legal restriction of imports is merely a hit-and-miss way of moving toward that pattern of trade which believers in economic freedom wish to see eventually sustained by keen competition.

A question sometimes raised is why there has not already been a more decided movement toward a new equilibrium pattern. Seven years is represented as being a long period, and Europe has had much assistance. In this connection it is important to remember that OEEC Europe has

[16] *Lloyds Bank Review*, October 1952.

had a double problem, the dollar problem and the problem of her over-all balance of payments. Of the first mentioned the most important ingredient is the changed position of gold, though significant contributions have also been made by the decline of invisible receipts and abnormal importations into continental Europe of U. S. machinery, chemicals, and cotton. The problem of her over-all balance has different causes and is of larger dimensions. There has been considerable misunderstanding about the relation between the dollar imbalance and the over-all imbalance.

The dollar problem presents itself as the more urgent, since immediate gold or dollar payments are required. The most quickly working method of coping with it is the direct restriction of dollar imports; an export drive to the dollar area may also yield fairly quick results, and this has been vigorously pursued. A more slowly working method of curtailing dollar imports is the stimulation of alternative sources of supply. These methods tend toward securing a bilateral balance; but the most satisfactory method—which should in the long run, and when a true equilibrium in the international pattern of payments is achieved, yield the best result—is the capture of dollars in third party markets. This third, most fundamental, and most beneficial method can be brought into play only *after* the problem of the over-all balance has been thoroughly cured. For as long as the third party countries are in surplus with Europe, they can pay the European countries in their own coin. (Exception must be made for certain special areas which do in fact yield dollars.) Thus the dollar problem of Europe is closely tied up with her over-all balance of payments problem.

The over-all balance of payments problem has arisen from the fact that Europe has had to increase her exports greatly in order to pay for the same imports that she was getting previously. This has been due to the loss of income on invisible account, most notably investment income, and the deterioration in her terms of trade.

In Table 10, an attempt is made to set out in quantitative terms the increased burden on certain European countries due to these two causes. It is fair to add that other European countries do not appear to have had large losses of investment income from abroad, so that the increased burdens upon them have not been so great as those borne by the countries cited. In this table, the values of invisible items accruing in 1948 and in 1950–51 have been reduced to allow for the rise in the prices of imports since 1938. The values of the different items, as thus established, have been subtracted from the values of the corresponding items in 1938 and the differences expressed as percentages of the exports of the different countries in 1938. This table thus answers the question, what expansion of its exports, from those in 1938, each country would

TABLE 10. ESTIMATES OF INCREASES IN EXPORTS ESSENTIAL TO OFFSET LOSS OF INCOME ON INVISIBLE ACCOUNT, SELECTED COUNTRIES[1]

	United Kingdom		France[2]	Netherlands	
	1948	1950–51	1950–51	1948	1950–51
Gain (+) or loss (−) on account of invisible services expressed as a percentage of exports in 1938					
Transportation	+0.9	+2.1	−7.3	+3.1	+4.7
Investment income	−26.7	−26.0	−24.5	−19.5	−19.3
Government	−3.6	−3.0	....	−3.7	−1.8
Foreign travel, Other	−1.2	+1.0 +2.5	−8.7 +0.8	....	....
Total	−30.6	−23.4	−39.7	−20.1	−16.4
Quantum of exports required to buy 1 unit of imports (*1938 = 100*)	117.0	134.3	120	104.4	120.2
Percentage increase of exports required					
To make good loss of invisibles	35.3	31.4	47.6	20.9	19.7
To make good reduced buying power of visible exports	17	34.3	20	4.4	20.2
To offset two adverse factors together	52.3	65.7[3]	67.6	25.3	39.9

[1] For description of the data, see text.
[2] The figures relate to trade and services between metropolitan France and the non-franc area.
[3] For the worse year, 1951, this figure is 85.6.

have to make to replace precisely the loss of buying power of its invisible earnings; in other words, by what amount each country would have to increase its exports so as to be able to buy that quantum of imports which the invisible items, present in 1938 but since lost, were then able to buy. Further, a figure is added showing by what percentage exports would have to be expanded to allow for the worsened terms of trade. It should be emphasized that the final figures make no allowance for any increased requirements for imports; they merely state what the expansion of exports would have to be in order to buy precisely the same quantum of imports that was bought before. Thus no allowance is made for the need to expand exports in order to obtain imports for a larger population or for higher productivity. Furthermore, there is no implication in the table that trade balanced in 1938; the table only shows what increase of exports was required to make good the specific losses listed, not what increase of exports might be required to the extent that trade was out of balance in 1938.

This deterioration has involved very heavy burdens indeed. It has not been easy for countries, already great exporters and also burdened with internal tasks of postwar reconstruction, to expand exports by 50 or 60 per cent before even beginning to pay for such extra imports as might be needed, including those very necessary imports which have constituted the raw materials of the extra exports.

The causes of the deterioration in the terms of trade cannot be fully explored here. For the United Kingdom, the prices of imported food rose only 15 per cent against the prices of all her exports, but the prices of imported materials doubled against her export prices. This has probably been due to the large increase in manufacturing activity in a number of countries impinging upon supplies of raw materials that are insufficiently elastic. Note must be made of the great increase in the manufacturing activity of the United States, entailing a corresponding increase in the demand for materials; the production of the United States is so high that a doubling of it makes a large impression on world requirements for materials. The first effect of this has been a severe deterioration in the United States' own terms of trade, which has already been noted as being a factor of easement of major importance tending to reduce the world's dollar imbalance. But while this easement has allowed many countries to import more dollar goods than would otherwise have been possible, it has not extended its beneficial effect in this respect to Europe, but has on the contrary increased Europe's difficulties. For Europe shares with the United States the role of being an importer of these materials; the upsurge of production in the United States has had the effect of worsening Europe's terms of trade and thus adding to the problems that beset her.

To return to the question of "seven long years." By 1948 the United Kingdom had reconstructed her industry and raised her exports 38 per cent above their 1938 level; by this means and a restriction of imports she achieved an over-all balance, her dollar deficit being offset by an over-balance with other regions. This was not a sufficient recovery, since it was needful for the United Kingdom to have an over-all over-balance, both to make overseas investments and to reduce her ex-war indebtedness. A special difficulty has confronted the United Kingdom throughout the period in the task of earning dollars in third party markets; namely, the existence of large ex-war sterling balances which could be used by these third parties to pay for British surpluses. It was indeed needful to reduce these balances, but the rate at which they have been paid off has been governed by the fortuitous accrual of trade surpluses with particular countries rather than by any predetermined plan. In fact, sterling balances outside the sterling area were reduced from £1,306 million at the end of 1947 to £842 million at mid-1952. The recovery of continental

Europe, and especially of Germany, had not proceeded so far by 1948, but she was on the upward grade and was to be greatly assisted by ERP.

Unhappily, after 1948 another evil befell. The terms of trade once more moved heavily against the OEEC countries (see Table 10). The worst year was 1951. In that year British terms of trade (prices of imports in terms of exports) had risen 16.8 per cent above the 1948 level. Since British imports were $9,792 million, f.o.b., the extra amount of exports required of Britain as a consequence of the worsening in the terms of trade was equal to $1,640 million. Britain had to export over $1.6 billion worth of goods to the world at large merely to balance and offset the extra claims upon her for goods consequent on the worsening in her terms of trade. This event removed her, to the extent of $1.6 billion, from that crucial point at which she would begin to earn dollars in multilateral exchange. According to a publication of the OEEC,[17] the European terms of trade (export prices of imports) rose 10 per cent between 1948 and 1951. The imports of Europe as a whole (including the United Kingdom) in 1951 were $33,673 million, c.i.f. Reducing to f.o.b. and applying 10 per cent it appears that Europe as a whole would have to send out $3,031 million extra goods merely to offset the worsening in her terms of trade.[18] She would have to find additional markets for all these exports before she could begin to earn dollars in multilateral exchange.

There has been controversy, which cannot be settled here, concerning how far this further worsening, superimposed upon the worsening that had already occurred by 1948, was due to occur in any case, how far it was due to the devaluation of currencies in 1949, and how far to the Korean outbreak. Reference to the simultaneous deterioration in the U. S. terms of trade is not decisive, since her imports are more price-sensitive than those of Europe and were naturally more affected by her own post-Korea stockpiling. Whatever may have been the cause, the fact remains that a new heavy task was imposed on Europe[19] which had to be carried through prior to her beginning to earn dollars in quantity in multilateral exchange. Three years is by no means a long period to assign for its achievement

A burden of this magnitude is much heavier for European countries, which have to devote a large proportion of resources to export, than for

[17] *Statistical Bulletins: Foreign Trade*, June 1952.

[18] Ten per cent is the average loss of buying power of all European exports. In the sphere of intra-European trade, the worsened terms of trade of some countries exactly cancel the improved terms of others. If p was the fraction of European trade going outside Europe, the deterioration in the terms of trade of Europe with non-Europe must have been $\frac{10}{p}$ per cent. Whether one applies the fraction $\frac{10}{p}$ per cent to European exports going outside Europe, or, as in the text, the fraction 10 per cent to *all* European exports, one gets the same answer.

[19] In what follows, Europe is used for OEEC Europe.

such a country as the United States, whose exports, although large, bear a much smaller proportion to national income. Reference may be made to the British case by way of example. By 1950–51 the volume of her exports had risen 80 per cent above the 1937–38 volume. This alone does not truly represent the magnitude of the strain. Food, drink, and tobacco have not shown a great increase, and coal, for special reasons that are well known, has lagged; her manufactured exports have been more than double their prewar level. This figure has to be taken in relation to the fact that even in 1937–38 an abnormally large proportion of her resources were devoted to exports. An analysis of the employment of British manufacturing capacity in 1948[20] shows that 25.5 per cent of such employment was devoted to exports and only 37.5 per cent to the provision of all the numerous consumers' goods that her population of 50 million people required. Since 1948 the volume of her exports has increased more than in proportion to total production while consumption has barely risen; by a rough calculation it appears that in 1950–51 the proportion of manufacturing capacity devoted to exports was about 27.5 per cent, and that devoted to home consumption was about 32.5 per cent.

It is desirable to add a rider concerning devaluation, not so much by way of historical retrospect as of warning concerning the future, and not so much by way of analysis of what happened as of what might have been expected to happen. Devaluation may be accepted when it is an *ex post* recognition that internal costs and prices have got out of line with those abroad; using it experimentally to improve an adverse balance is a much more doubtful matter. Devaluation is both inappropriate and dangerous when a country is suffering from internal inflationary pressure—inappropriate because the correct remedy is to remove the pressure, a process which may itself suffice to correct the external imbalance, and dangerous because it adds fuel to the flames of internal inflation. In the old days devaluation was regarded as a form of currency debauchery; this was a healthy view of it. Devaluation is more likely to improve the balance of trade when applied to a small country only; much less likely when applied to a large region. Most important of all, devaluation is less likely to improve the balance of a country whose demand for imports is inelastic. The European demand for imports was inelastic in 1949, both because imports consisted largely of food, materials, and specialized capital goods, and because the demand for unnecessary imports had already been pruned away by administrative restrictions. It was hoped that the devaluations would make it easier for European producers to offer competitive prices vis-à-vis U. S. producers. This was only a minor aspect of its probable effect. The major effect for a group of countries

[20] Central Statistical Office, *National Income and Expenditure, 1946–51* (London, 1952).

whose demand for imports was very inelastic was likely to be to turn the terms of trade against them. But this very process would postpone the day when they would begin to be able to capture dollars in third party markets. There was no force in devaluation tending to make dollar prices in world markets fall; and they did not fall. The dollar prices of some European imports fell temporarily because they were protected by contracts. But the intended effect of devaluation was to make the dollar prices of European manufactures fall. If it did not produce this effect, owing to a quick marking up of internal costs, it would be rendered nugatory and had better not have taken place. The combined effect of stable dollar prices for imports from *all* sources—not from dollar sources only—and lower dollar prices for exports to all sources would be to create a large gap before an over-all balance could be achieved. The maximum stimulus that devaluation could give to European exports to the U. S. market would, in any case, be only in terms of $100–200 million. The obstacle which devaluation was likely to plant in the way of Europe's earning dollars in third party markets was of the order of $2–3 billion. This point is of central importance in the problem that still lies ahead of Europe. It was also hoped that devaluation would tend to encourage the production of raw materials and foodstuffs in non-dollar regions; this was likely to be a long-run effect. If the hope is eventually realized, this will be of advantage.

In regard to what Europe has been able to achieve in a seven-year period, the burden of post-Korea rearmament must be mentioned. This directly limits her power to expand certain acceptable types of exports. These tasks taken together suggest that, despite the lapse of seven years, further patience would not be misplaced.

If Europe had to achieve dollar solvency without further curtailing dollar imports, it seems that she would have to displace U. S. exports to third party markets by her own, to the value of between $1 billion and $1½ billion. This would have to be primarily by the export of semi-finished or finished manufactures. In 1951 the value of U. S. exports of these categories to all countries other than the OEEC countries lay between $7 billion and $7½ billion. In the same year the OEEC exports of these categories outside the United States and the OEEC countries themselves were also between $7 billion and $7½ billion. Thus it seems that, in order to capture sufficient dollars in third party markets, the OEEC countries would have to capture the proceeds of about one sixth of all these U. S. exports. In order to do this by price competition, they would have to displace considerably more than one sixth of the U. S. exports, for the third party countries could pay for part of the increased European exports in European currencies, owing to their lower unit prices, and would have to pay dollars only for the remainder. (See

below.) Furthermore, there are no doubt many lines in which displacement is not truly feasible, so that a still larger proportionate displacement would have to occur in the lines in which European competition was practicable.

In recent years there has been a gulf between the thought of some writers concerned with international equilibrium and those concerned with the theory and practice of the home market. The international experts have tended to assume "perfect competition," while home market experts have explained that "imperfect competition" is all-pervasive in the field of manufactures. By the doctrines of imperfect competition a price concession, even if large, is not likely to capture the whole of a rival's market but only the fringe of it; the capture of a large part of it may be possible only as the end result of a long process. Students of industrial organization have reached similar conclusions. When the conditions for an expansion of sales, and particularly for an encroachment on rivals' markets, are studied, it is taken as quite axiomatic that a combination of methods has to be employed simultaneously. Long and careful market research may be needed; also a well thought out campaign of aggressive salesmanship; also means of giving desired customers assurance of the continuity of supply; a concession on price is merely one item, and sometimes a less important item, in the whole campaign. It would also be treated as axiomatic that, in most cases, for a firm to expect to make an encroachment by a price concession alone, without having brought to bear all other considered methods of sales pushing, would involve it in a mere loss of money. Transferring this from the internal to the international sphere, it means that the attempt of a nation to improve its balance by price concessions alone is likely to worsen its balance. Yet a sudden devaluation—and devaluations in practice have to be fairly sudden—or the depreciation of a currency owing to some new force operating in a "free market" are analogous to price concessions offered alone and without the necessary ancillary measures.

It is convenient to give a hypothetical example of the limitations of price concessions in themselves. Suppose that European and U. S. producers share, half and half, the third party markets for a finished manufacture, and that Europe desires to capture the dollars representing 16 per cent of the U. S. sales. If this could be done by a small price concession—combined with a careful selling campaign—the result would be satisfactory. A large concession is likely to be needed to obtain a quick result—let us suppose 20 per cent. If a 20 per cent price concession captures as much as 45 per cent—a formidable onslaught—of the American market, the desired result would be achieved; the third party market would be able to pay for the first extra 25 per cent of the European article out of the European currency released by the 20 per cent price

concession itself; only for the next 20 per cent would it have to surrender U. S. dollars. (Since the European price is down by one fifth, this 20 per cent of U. S. sales would bring in 16 per cent of the U. S. dollars previously used to buy the exports from the United States.) But if the 20 per cent price concession only displaced one quarter of the U. S. sales, Europe would have won no dollars at all. This illustrates that it may be impossible in the literal sense of the word to capture a large quantity of dollars by displacing U. S. exports by large price concessions—such as might be facilitated by sizable devaluations.

A wise man may think it unlikely that Europe will in fact displace so large a proportion of U. S. exports to third party markets in the near future, whatever method be adopted. There is no reason to despair of the eventual establishment of a multilateral pattern. This is more likely to be achieved gradually. If Europe makes strenuous and unremitting efforts to capture third party markets, she may displace some dollar exports in the near future, but is more likely, at best, to succeed in capturing a lion's share of the new dollars that become available later owing to the secular rise of U. S. imports. But this can bring home enough dollars only over a rather long period. Until this is achieved, Europe, if she is to maintain solvency, will need to have discriminatory restrictions on dollar imports, save to the extent that alternative sources of supply of commodities now obtained from the United States become available.

The foregoing argument has suggested that it would not be easy for Europe to capture sufficient dollars in third party markets even if the rest of the world were in dollar balance. But it is not. A number of non-European countries have some way to go before they achieve their own dollar balance. For those countries a more plentiful supply of imports from Europe might be welcome because they would be substitutes for dollar expenditure and would enable those countries to get into better dollar balance; but they would not at that stage be requited by dollars for Europe. Some of the countries in question are in over-all imbalance. This position would have to be corrected before Europe could hope to earn dollars by a vigorous export drive to them.

It is important to emphasize that, in the fairly near future, the alternative to rather stringent discriminatory import restriction in Europe is a displacement of U. S. goods of large value from markets elsewhere. This form of statement may suggest methods of international cooperation. Planners may argue that the matter is a simple one: the United States has only to agree to withdraw from certain overseas markets that Europe could supply. Such a solution would no doubt be impractical and unacceptable; it would violate the principle of competition and give no guarantee that the United States and Europe respectively supplied the goods which each was economically best fitted to produce. On the

other hand, the ideal of competition may be pushed too far as though it were an end in itself. International trade should not be regarded in terms of a football game, in which each side is exhorted to do its utmost to outwit the other. If it were a principle of high U. S. policy that it is better that the reduction of U. S. exports should be carried out on a rather wide front, rather than solely in Europe, help might be given in small ways.

Similar considerations arise in connection with the Point Four policy of the United States. This is conceived in statesmanlike terms to raise standards of production in underdeveloped countries. It could also be made to subserve, quite in accordance with its general aim, a better balance of international payments. It may often happen that a given project could be achieved more economically by European than by American equipment; it may be in the best interests of an underdeveloped country that a project should be carried out in the most economical, rather than in the most perfect, way. American consultants would naturally tend to supply know-how implying American methods, both from normal and proper patriotic motives and, possibly, from ignorance of alternative methods. It would therefore be a way in which the United States could greatly assist recovery, if she authorized a liberal employment of European consultants and technicians on such schemes. This argument applies *a fortiori* to development projects sponsored by international agencies.

There is also a moral on the plane of international monetary and commercial policy. On the supposition that the disturbance to the previous economic pattern caused by World War II is too great for an adjustment to be achieved readily under conditions of completely free trade, and that the dollar must temporarily be regarded as a currency in short supply, we may ask what kind of discriminatory restrictions best accord with the international ideal. It should be emphasized that we are concerned only with discriminations during such a transitional period as may be deemed of reasonable length for securing the necessary changes in the structural pattern of production and trade. It might well be argued that, ideally, if the currency of one particular country is in short supply, discriminations against its use should be adopted universally, so as to impose roughly equal sacrifice on each country. At the opposite extreme is what is apt to happen in practice, namely, a tendency toward a bilateral balance of each country with the United States. Those countries whose natural pattern of trade is to be in strong deficit with the dollar are driven to impose violent discriminatory restrictions, while those tending rather to balance or to surplus impose no restrictions. This is all wrong. Ideally the restrictions should exert equal pressure all round, those countries tending to surplus conserving the dollars won and handing them over to the strong deficit countries, so as to enable them to

reduce the violence of their restrictions. That would conform to the principle of multilateralism and give the best distribution among the different nations of the quantum of dollar goods that the world as a whole is able to buy. What has here been described as the "ideal" pattern of restrictions, if restrictions cannot be avoided, is no doubt quite impossible in practice. It should not, however, be too much to expect that international policy might be used to mitigate the tendency to bilateralism somewhat, by encouraging nations which have mild discriminatory restrictions to retain them, as long as there are other nations which through no fault of their own are having to impose more severe ones.

Commodities

It was shown earlier in this paper that the over-all trading surplus of the United States in 1950–52 was not substantially greater than the surpluses which obtained in the twenties and the thirties; that the somewhat greater surplus on goods and services account has been due to a net increase of services; and that the main reason why this surplus causes embarrassment now, whereas it did not before, is the reduction in the value of newly mined gold available to pay for it. This embarrassment is concentrated upon Europe. It cannot be claimed, however, that this is the whole story. There is also a latent demand for dollar goods of unknown amount which is held in check by restrictions. Furthermore, the severe worsening in the U.S. terms of trade would have tended to cause that country to move into an adverse balance, were it not for a great increase in the demand for her exports. This has arisen largely because that country has been in the forefront of progressiveness, going far ahead beyond her neighbors and beyond previous records to supply the latest needs and desires of producers and consumers. It is beyond the scope of this report to attempt an analysis, article by article; some general observations must suffice.

To illustrate this matter, U.S. exports for 1950–51 have been tabulated countrywise and commoditywise (Tables C and D, pp. 39 and 40), and the changes in comparison with the record of 1936–38 have been further compared with the general movement of world trade between these two periods. In each table, column 1 shows actual exports in 1936–38; column 2 shows actual exports in 1950–51; column 3 shows the exports of 1936–38 multiplied by 3, this figure having been chosen as representing the increase of world trade expressed in dollars; and column 4 shows which exports have increased at a rate more rapid than that of the increase of world trade. It is not implied that there is anything abnormal or unnatural in such increases; in a thirteen-year period many changes in the pattern of trade are normally to be expected.

Countrywise the result of the broad regional analysis is confirmed. Apart from the Western Hemisphere, the only countries of substantial abnormal increase are India, Italy, and Germany. The restrictive character of the U. K. policy stands out very strongly.

The commodity pattern may not represent so much what producers or consumers would have wished, if free, to buy in the United States at current prices, but rather what governments think they ought to have. The commodity groups of substantial abnormal increase are seen to be grain, industrial machinery, chemical products, textile fibers and manufactures other than raw cotton, vehicles, and coal, in that order.

The increased dependence of the rest of the world on U. S. grain is a factor of major importance. The increase of exports above the trend is seen to be no less than $556 million. The initiating cause of this large shift was probably the partial severance of alternative suppliers from their markets owing to shipping difficulties during the war. The United Kingdom depended largely on supplies from North America, and this factor continued to operate in Western Europe during a period after the liberation. Expansionist (and inflationary) influences have drawn workers from the land to the towns in certain other overseas countries, and this movement has sometimes also been favored by official policy. Meanwhile in the United States agricultural productivity has increased greatly, and a support price policy has given encouragement to output.

The high export of industrial machinery is the consequence of enlarged investment programs in many lands. The United Kingdom has developed an increase of exports of machinery, which has been nearly as great in proportion as that of the United States. It was more difficult for the United Kingdom to make a proportionate expansion, since machinery exports constitute a far greater proportion of her factory output and of her national income than they do in the United States; delivery dates have been chronically bad owing to the difficulty of expanding capacity sufficiently quickly and to other calls upon existing capacity. Germany, meanwhile, has suffered from delayed recovery. There is reason to hope, therefore, that with the passage of time Europe may be able to meet a larger proportion of the world's increased demands in this category, and this may be a substantial factor of easement in the dollar situation.

The increase of U. S. textiles is notable.[21] The United States appears to have had a distinct price advantage against Europe; at the same time she has been markedly progressive in design and style. This expansion in a field where no special factors were working in her favor may be taken as symptomatic of her generally superior efficiency and energy. There is, however, from the point of view of the rest of the world, a more cheerful aspect of this phenomenon. We are in ignorance of how

[21] See Gertrud Lovasy, *Rise in U. S. Share of World Textile Trade*, elsewhere in this issue.

much larger the demand for U.S. exports would be if it were not confined by governmental restrictions. The great increase of U.S. textile exports suggests that the suppressed demand for dollar goods may not be so great as some fear, for governments would hardly allow great increases of dollar textile imports, for which other sources of supply have been available, if they were at the same time suppressing many urgent needs for dollar goods.

Summary and Conclusion

The figures for the period 1950-mid 1952 suggest that the world's dollar imbalance may be thought of in round terms as having been a $2 billion per annum problem. If this period is compared with 1936–38, it is found that the value of U.S. imports (excluding gold) had risen as much as that of U.S. exports, including in the latter those sent out gratis other than "military aid" proper. The volume of U.S. exports rose more than the volume of U.S. imports, but this was offset by the worsened terms of trade for the United States. U.S. trade rose in dollar value about a third more than world trade; this was due entirely to more active trade between the United States and the rest of the Western Hemisphere; U.S. trade with non-America (including gratis exports as above) did not rise more than world trade generally.

The U.S. surplus on trade account in the period 1950-mid 1952, considered as a percentage of her exports, was of the same order of magnitude as that in the periods 1933–38 and 1924–29. But a moderate deficit on "services" account had changed to a moderate surplus, transportation being the largest factor of change. In the twenties the surplus on goods and services together was covered by overseas investment by the United States; in the thirties it was covered by the payment of gold to the United States; in the fifties it has been covered by "aid". Actually, the gold shipped to the United States in 1933–38 was four times the value of the U. S. surplus, owing to capital movement. The rest of the world could have paid the bare surplus of the United States in this period in newly mined gold and at the same time added comfortably to its reserves.

If the pattern of trade in the period 1950-mid 1952 is compared with that in the thirties, the greatest single item of difference is seen to be the shrinkage in the goods value of newly mined gold available for central banks and treasuries. This was due to the fixity of its dollar price, to reduced output, and to the disappearance into private hoards of amounts equal to more than half the new output.

The first section of this report (pages 2–5) argues, against an historical background, that the great decrease in liquidity for purposes of

international settlement, which is due to the changed relation of the value of gold stocks and accessions to the value of world trade, has caused and is likely to continue to cause a chronic tendency to import restrictionism. If the value of newly mined gold becoming available for money outside the United States and the U.S.S.R. had borne the same relation to the value of world trade as it did in the thirties, the rest of the world could have paid for the whole realized surplus of the United States on goods and services account in 1950-mid 1952 without loss of reserves and without aid (other than military items).

This is not to be taken to imply that it is desirable for the United States to continue to import any given value of gold. As things are, the rest of the world has either to find acceptable goods to ship to the United States in lieu of the gold previously shipped, in order to pay for some 15 to 20 per cent of U. S. exports, or, to the extent that it fails, to reduce its imports from the United States by that amount.

Both in 1936–38 and in 1950-mid 1952, the deficit of OEEC Europe with the United States in bilateral trade was greater than that of the whole world including OEEC Europe. In the former period, the OEEC deficit was somewhat reduced by invisible items; in the latter period, less so. Thus the main part of the readjustment required by the gold change has to be made by OEEC Europe. This concentration of the need for readjustment upon one region makes its achievement more difficult, since it involves cutting more deeply into the former pattern of trade. The bilateral deficit of Europe with the United States of about 38 per cent (approximately $1.3 billion) might have been greater in the absence of restrictions.

While the gold change has made the dollar crisis more intense for OEEC Europe than elsewhere, that region has had, simultaneously, another postwar trading problem of greater quantitative importance. Loss of invisible income and worsened terms of trade have made it necessary for Europe greatly to increase its exports to the rest of the world as a whole in order to buy the same imports as before. For such countries as the United Kingdom and France, the increase of exports required has been some 60 per cent. (In the worst year, 1951, this figure rose to 85 per cent for the United Kingdom.) This has meant a strain upon the manufacturing capacity of those countries and set off inflationary pressures, which in parts of the period had other causes also.

The most important of the various causes for the worsened terms of trade is probably the great increase in manufacturing output throughout the world, and notably in the United States, which entailed increased requirements for materials and a rise in their relative prices. In searching for differences in the pattern of trade in the period 1950-mid 1952, compared with that of 1936–38, it is well first to multiply figures for the

latter by 3. The index of world dollar prices had risen to 225 and the volume of world trade by about one third ($2\frac{1}{4} \times 1\frac{1}{3} = 3$).

In the attempt to close the dollar gap, OEEC Europe has had some success in increasing exports of manufactures to the United States. The United Kingdom has cut imports severely by direct restriction; continental Europe has restricted in some lines, while purchasing fairly freely, as intended by ERP, in others. An alternative method of curtailing dollar imports is to invest outside the dollar area in the production of commodities now bought from the United States.

If a true multilateral equilibrium of trade is to be reached, it is probable that OEEC Europe should not close the main part of the dollar gap by either of the methods mentioned in the preceding paragraph, but by the capture of dollars in multilateral trade. It is important to observe that not much progress can be made along this, the most fruitful, line, until OEEC Europe has secured a firm over-all balance with the non-dollar world, for until that point is reached, she can be paid by third parties for the most part in her own currencies. Thus the establishment of an over-all balance is a prior condition for the best solution of the dollar imbalance. From this point of view, the further deterioration in the European terms of trade between 1948 and 1951 was unfortunate.

It has been suggested that it should not, eventually, be more difficult for Europe to settle her accounts with the United States, since in the thirties also she had to have an over-balance with the non-dollar world wherewith to buy the gold to remit to the United States. It is further suggested that, since the United States has increased the value of her imports more than three times, there are additional dollars available for Europe to capture in third party markets in lieu of the gold formerly bought there. But there is a big difference. It has been seen that the United States has increased her purchases outside the Western Hemisphere less than three times (see Table 3); it is only in Canada and Latin America that she has provided additional dollars. But the gold previously came mainly from the sterling area, with which Europe had well-established trading relations. While Europe was involved in postwar difficulties, the United States was able to meet demands in Canada and Latin America arising from and supported by their additional dollar earnings. It was clearly much easier for Europe to have a large over-balance outside the Western Hemisphere, which could be earned and paid for by newly mined gold, than to establish an equivalent overbalance with Canada and Latin America by displacing U. S. exporters. For this process to go forward it would be necessary that the Western Hemisphere countries should not, themselves, be in over-all imbalance.

Meanwhile, all these developments have to proceed against the back-

ground of increased world demand for U. S. exports. The balance of grain supplies has shifted; there has been an abnormal increase in the world demand for industrial equipment, and other countries have not been able to increase supplies as quickly as the United States; meanwhile, all along the line the United States has shown marked progressiveness and efficiency, of which her abnormal increase in the export of textile manufactures is a notable manifestation. These trends make the task set for Europe of capturing dollars by displacing U. S. exports in third party markets more difficult.

Local inflations, both in Europe and elsewhere, played an important part in creating a dollar imbalance in the postwar quinquennium. Their importance in the over-all picture has now diminished considerably, but continued vigilance is necessary to prevent recurrence.

For the world-wide dollar imbalance, the prevention of inflation in the various countries is an essential remedy. For the special problem of Europe, it is not a sufficient one. The secular growth of U. S. imports will provide an easement for this, both because it will allow a rise—although not a relatively large one—in direct European exports to the United States and because it will provide additional dollars around the world for Europe to earn, if she can generate and maintain continuing competitive pressure. How far Europe can go beyond this and win additional dollars in third party markets by displacing existing U. S. exports must remain a doubtful question. But if she cannot do this on a rather considerable scale, then in the near future she will have to curtail U. S. imports in order to be in balance. This may be achieved in part and in due course by investment in the production outside the United States of commodities now bought from that country. There being no other source of U. S. dollars, it does not appear probable that direct discriminatory restriction of dollar imports can be avoided by Europe in the near future. The question of an expansion of U. S. capital investment abroad has not been considered.

Study of the large size of the postwar maladjustments, notably those connected with the displacement of gold and with the need for Europe in her general trade to export so much more in order to pay for the same imports as before, has a twofold moral. (1) We need not think that seven years, complicated as they have been by the Korean outbreak, the post-Korea inflations, and the rearmament programs, constitute a long period for the attainment of balance, even taking into account the generous aid provided; nor need we therefore despair of the eventual achievement of an equilibrium in which discriminations and restrictions are no longer necessary. (2) On the other hand, the large size of the adjustment still to be made must make us skeptical of the possibility of the quick demise of various protective devices.

TABLE A. U.S. GENERAL IMPORTS, BY COUNTRIES

	Reported Imports[1]		"Calculated"[2] 1950–51 Average	Difference between Reported and "Calculated" Imports (Col. 2–Col. 3)	Reported Imports as Per Cent of "Calculated"
	1936–38 Average	1950–51 Average			
	←(million dollars)→				
	(1)	(2)	(3)	(4)	(5)
Canada	351	2,115	1,053	1,062	201
Malaya and Singapore	174	367	522	−155	70
United Kingdom	174	400	522	−122	77
Japan[3]	168	193	504	−311	38
Cuba	127	412	381	31	108
Philippines	107	259	321	−62	81
Brazil	107	812	321	491	253
Indonesia	85	211	255	−44	83
Argentina	82	212	246	−34	86
Germany	79	166	237	−71	70
China	75	101	225	−124	45
India, Burma, and Pakistan	75	316	225	91	140
France	65	197	195	2	101
Belgium-Luxembourg	59	178	177	1	101
Mexico	53	322	159	163	202
Sweden	51	87	153	−66	57
Colombia	48	337	144	193	234
Netherlands	45	102	135	−33	75
Italy	43	124	129	−5	96
Chile	34	181	102	79	177
Czechoslovakia	29	24	87	−63	28
Australia	25	247	75	172	330
U.S.S.R.	25	33	75	−42	44
Switzerland	24	122	72	50	169
Norway	21	46	63	−17	73
Netherlands West Indies	18	158	54	104	293
Ceylon	17	58	51	7	114
Finland	17	46	51	−5	90
Poland	15	10	45	−35	22
Turkey	15	68	45	23	151

[1] Data are from (1) U.S. Department of Commerce: *Foreign Commerce and Navigation of the United States for the Calendar Year 1940* (Washington, 1942); Business Information Service, International Trade Statistics Series, February 1951; and *Quarterly Summary of Foreign Commerce of the United States*, January–December 1951; and (2) *Direction of International Trade*, January–December 1950 (United Nations, International Monetary Fund, International Bank for Reconstruction and Development).

[2] What imports would have been in 1950–51 if they had increased in the same proportion as world trade, i.e., column (1) multiplied by 3.

[3] Including Korea and Taiwan, 1936–38.

TABLE A—*Continued*

	Reported Imports[1]		"Calculated"[2] 1950–51 Average	Difference between Reported and "Calculated" Imports (Col. 2–Col. 3)	Reported Imports as Per Cent of "Calculated"
	1936–38 Average	1950–51 Average			
	←(million dollars)→				
	(1)	(2)	(3)	(4)	(5)
Gold Coast	14	74	42	32	176
New Zealand	14	80	42	38	190
Spain	14	56	42	14	133
Peru	13	54	39	15	138
Union of South Africa	12	139	36	103	386
Egypt	10	50	30	20	166
Uruguay	10	120	30	90	400
Guatemala	9	59	27	32	219
Nigeria	7	42	21	21	200
El Salvador	6	58	18	40	322
Belgian Congo	2	54	6	48	900
Thailand	0.4	106	1.2	105	8,833
Specified total	2,319	8,796	6,957	1,839	126
Rest	170	1,105	510	595	217
Grand total	2,489	9,901	7,467	2,434	133

For footnotes, see page 36.

TABLE B. U.S. IMPORTS BY AREAS AND COMMODITIES

	Reported Imports[1]		"Calculated"[2]	Difference between Reported and "Calculated" Imports (Col. 2–Col. 3)	Reported Imports as Per Cent of "Calculated"
	1936–38 Average	1950–51 Average	1950–51 Average		
	←(million dollars)→				
	(1)	(2)	(3)	(4)	(5)
General Imports by Areas					
Latin American Republics	542	3,126	1,626	1,500	192
Canada	351	2,115	1,053	1,062	201
Continental OEEC	380	1,177	1,140	37	103
United Kingdom	174	400	522	−122	77
Other sterling area	373	1,489	1,119	370	133
Other	669	1,594	2,007	−413	79
Total	2,489	9,901	7,467	2,434	133
Imports for Consumption by Commodity Groups and Major Commodities					
Animal products, edible	95	403	285	118	142
Animal products, inedible	176	387	528	−141	73
Coffee	141	1,227	423	804	290
Sugar, raw	152	384	456	−72	84
Other vegetable food products and beverages	331	852	993	−141	86
Rubber, crude, including latex	179	634	537	97	118
Other vegetable products, inedible	194	448	582	−134	77
Wool, unmanufactured	57	570	171	399	333
Other textile fibers and manufactures	325	706	975	−269	72
Wood and paper	264	1,208	792	416	153
Petroleum and products	42	594	126	468	471
Other nonmetallic minerals	87	345	261	84	132
Metals and manufactures	215	1,307	645	662	203
Machinery and vehicles	21	200	63	137	317
Chemicals and products	87	235	261	−26	90
Miscellaneous	95	274	285	−11	96
Total	2,461	9,774	7,383	2,391	132

[1] For sources of data, see Table A, footnote 1.

[2] What imports would have been in 1950-51 if they had increased in the same proportion as world trade, i.e., column (1) multiplied by 3.

TABLE C. U.S. GENERAL EXPORTS BY COUNTRIES[1]

	Reported Exports[2]		"Calculated"[3]	Difference between Reported and "Calculated" Exports (Col. 2-Col. 3)	Reported Exports as Per Cent of "Calculated"
	1936-38 Average	1950-51 Average	1950-51 Average		
	(million dollars)				
	(1)	(2)	(3)	(4)	(5)
United Kingdom	499	706	1,497	−791	47
Canada	462	2,292	1,386	906	165
Japan	244	506	732	−226	69
France	143	380	429	−49	89
Germany	112	479	336	143	143
Mexico	82	607	246	361	247
Netherlands	81	256	243	13	105
Argentina	79	188	237	−49	80
Cuba	79	498	237	261	211
Belgium-Luxembourg	77	322	231	91	140
Philippines	77	292	231	61	126
Union of South Africa	76	184	228	−44	81
Australia	67	138	201	−63	69
Italy	65	398	195	203	204
Brazil	60	521	180	341	290
Sweden	57	116	171	−55	68
U.S.S.R.	49	0.4	147	−147	0.3
China	44	18	132	−114	14
Venezuela	41	424	123	301	345
Colombia	36	228	108	120	211
India, Burma, and Pakistan	35	374	105	269	356
Netherlands West Indies	30	68	90	−22	75
Poland	24	5	72	−67	7
Panama[4]	24	79	72	7	110
Indonesia	22	120	66	54	182
New Zealand	22	42	66	−24	64
Chile	21	118	63	55	187
Norway	20	80	60	20	133
Denmark	18	60	54	6	111
Hong Kong	17	66	51	15	130
Peru	16	93	48	45	194
Kwantung	12	—	36	−36	—
Portugal	12	36	36	0	100
Turkey	12	60	36	24	166
Egypt	12	55	36	19	153
Specified total	2,727	9,809	8,181	1,628	119
Rest	240	1,912	720	1,192	264
Grand total	2,967	11,721	8,901	2,820	132

[1] "Special category" items are omitted.

[2] Data are from U.S. Department of Commerce: Business Information Service, International Trade Statistics Series, February 1951; and *Quarterly Summary of Foreign Commerce of the United States*, January–December 1951.

[3] What exports would have been in 1950–51 if they had increased in the same proportion as world trade, i.e., column (1) multiplied by 3.

[4] The 1936 and 1937 data include the Canal Zone.

TABLE D. U.S. EXPORTS BY AREAS AND COMMODITIES

	Reported Exports[1]		"Calculated"[2]	Difference between Reported and "Calculated" Exports (Col. 2–Col. 3)	Reported Exports as Per Cent of "Calculated"
	1936–38 Average	1950–51 Average	1950–51 Average		
	(million dollars)				
	(1)	(2)	(3)	(4)	(5)
General Exports by Area[3]					
Latin American Republics	484	3,113	1,452	1,661	214
Canada	462	2,292	1,386	906	165
Continental OEEC	614	2,548	1,842	706	138
United Kingdom	499	706	1,497	−791	47
Other sterling area	283	1,031	849	182	121
Other	625	2,031	1,875	156	108
Total	2,967	11,721	8,901	2,820	132
Exports of Domestic Merchandise by Commodity Groups and Major Commodities[4]					
Animal products, edible	63	310	189	121	164
Animal products, inedible	49	160	147	13	109
Wheat and wheat flour	62	742	186	556	399
Other vegetable food products and beverages	180	742	540	202	136
Tobacco	143	288	429	−141	67
Other vegetable products, inedible	74	418	222	196	188
Cotton, excluding linters	313	1,078	939	139	115
Other textile fibers and manufactures	96	680	288	392	236
Wood and paper	109	285	327	−42	87
Coal and related products	60	442	180	262	246
Other nonmetallic minerals	394	860	1,182	−322	73
Metals and manufactures	362	915	1,086	−171	84
Electrical machinery and apparatus	103	433	309	124	140
Industrial machinery	229[5]	1,229	687	542	179
Agricultural machinery and implements	21	125	63	62	198
Other machinery	86	183	258	−75	72
Automobiles and other vehicles	350	1,377	1,050	327	131
Chemicals and products	129	851	387	464	219
Miscellaneous	102	509	306	203	166
Total	2,925	11,627	8,775	2,852	132

[1] For sources of data, see Table A, footnote 1.
[2] What exports would have been in 1950–51 if they had increased in the same proportion as world trade, i.e., column (1) multiplied by 3.
[3] "Special category" items are omitted.
[4] "Special category" items, type 1, are omitted.
[5] Described in source as "not strictly comparable with data for later years." (This presumably refers to classification.)

TABLE E. IMPROVEMENT (+) OR DETERIORATION (−) BETWEEN 1936–38 AND 1950–51 IN REGIONS' BALANCES OF VISIBLE TRADE WITH UNITED STATES[1]

(In millions of U.S. dollars)

Region	Reported Change in Balance[2] (1)	Difference Between Reported and "Calculated" Change in Balance[2] (2)
United Kingdom	+19	+669
Other sterling area	+368	+188
Canada	−66	+156
Latin American Republics	−45	−161
Other	−481	−569
Continental OEEC	−1,137	−669

[1] The 1936–38 and 1950–51 data are annual averages.

[2] Column (1) is simply the existing (1950–51) surplus (+) or deficit (−) of each region with the United States minus the surplus (+) or deficit (−) in 1936–38. Thus, if a region had a deficit of $400 million per annum in 1936–38 and one of $300 million per annum in 1950–51, column (1) would be +$100 million, the reduction of the deficit constituting an improvement of that amount.

If each region had increased both its imports and its exports threefold in dollars, the deficit or surplus would likewise have been increased threefold. Column (2) is the actual surplus (+) or deficit (−) in 1950–51 minus three times the surplus (+) or deficit (−) in 1936–38 (i.e., Table B, col. 4 minus Table D, col. 4). Thus column (2) shows how matters actually were in 1950–51 compared with how they would have been if regions had simply increased threefold both their exports to and their imports from the United States. Column (2) may be regarded as a true index of the shift of the pattern of trade to date.

TABLE F. U.S. EXPORTS, INCLUDING RE-EXPORTS, TO OEEC COUNTRIES[1]

(In millions of U.S. dollars)

Year	All OEEC Countries	United Kingdom	France	Germany	Italy	Belgium-Luxembourg
1938	1,176.4	520.9	133.9	107.1	58.3[3]	76.9
1948	4,182.4	644.1	591.2	862.7	417.9	308.6
1949	4,071.9	700.4	497.2	820.3	458.1	306.8
1950[2]	2,817.2	511.2	334.2	439.4	340.0	265.9
1951[2]	3,826.3	900.8	427.2	519.3	456.2	376.7
1948–51 average	3,724.5	689.1	462.5	660.4	418.1	314.5
1950–51 average	3,321.8	706.0	380.7	479.4	398.1	321.3

[1] Data are from U.S. Department of Commerce: International Reference Service, Vol. VI, No. 5 (February 1949) and Vol. VII, No. 60 (July 1950); Business Information Service, International Trade Statistics Series, May 1952; *Foreign Commerce and Navigation of the United States for the Calendar Year 1938* (Washington, 1940); and data supplied by the Office of International Trade.

[2] Includes Aegean Islands.

[3] Excludes "special category" items.

TABLE G. U.S. DOMESTIC EXPORTS TO OEEC COUNTRIES, BY COMMODITY GROUPS AND MAJOR COMMODITIES[1]

(In millions of U.S. dollars)

	Year	All OEEC Countries	United Kingdom	France	Germany	Italy	Belgium-Luxembourg
Foodstuffs	1938	269.3	137.2	11.0	15.5	1.6	24.6
	1948	1521.9	35.4	156.6	665.0	193.7	70.6
	1949	1251.5	97.7	58.0	510.1	126.0	77.0
	1950	596.2	75.1	22.3	156.4	30.0	50.6
	1951	915.9	242.4	30.9	208.5	43.5	76.6
	1948–51 average	1071.4	112.7	67.0	385.0	98.3	68.7
	1950–51 average	756.1	158.8	26.6	182.5	36.8	63.6
Grains and preparations	1938	138.2	49.7	1.3	12.4	1.3	15.6
	1948	1079.7	0.1	118.6	465.7	171.3	28.2
	1949	912.7	26.8	34.6	407.4	104.3	46.7
	1950	450.1	55.2	19.9	113.7	26.9	33.0
	1951	707.3	138.9	26.0	198.7	38.1	59.1
	1948–51 average	787.5	55.3	49.8	296.4	85.2	41.8
	1950–51 average	578.7	97.1	23.0	156.2	32.5	46.1
Cotton, unmanufactured	1938	120.8	41.2	23.9	16.9	19.3	6.7
	1948	305.7	69.3	62.4	70.8	57.0	15.3
	1949	590.7	145.0	134.6	103.0	110.0	27.0
	1950	531.0	100.9	109.6	114.7	103.3	24.9
	1951	602.9	99.6	99.9	111.9	126.0	58.2
	1948–51 average	507.6	103.7	101.6	100.1	99.1	31.4
	1950–51 average	567.0	100.3	104.8	113.3	114.7	41.6

TABLE G—*Continued*

	Year	All OEEC Countries	United Kingdom	France	Germany	Italy	Belgium-Luxembourg
Tobacco and manufactures	1938	132.8	111.9	4.0	1.5	0.4	1.6
	1948	170.0	90.2	0.5	9.5	4.0	11.8
	1949	201.2	93.5	5.4	33.9	3.0	8.4
	1950	199.5	84.3	5.3	33.9	2.7	12.1
	1951	262.6	147.0	7.8	27.9	3.0	15.5
	1948–51 average	208.3	101.3	4.8	26.3	3.2	12.0
	1950–51 average	231.1	115.7	6.6	30.9	2.9	13.8
Vegetable oils and oilseeds, inedible	1938	1.4	0.8	0.1	0.2	—	—
	1948	39.6	1.7	11.3	8.1	—	6.9
	1949	86.8	0.5	10.6	26.6	11.3	8.9
	1950	78.8	0.4	7.0	30.9	6.7	8.7
	1951	90.4	3.5	9.4	10.1	24.2	17.8
	1948–51 average	73.9	1.5	9.6	18.9	10.6	10.6
	1950–51 average	84.6	2.0	8.2	20.5	15.5	13.3
Textile manufactures[3]	1938	22.2	8.7	1.9	4.5	1.2	1.3
	1948	95.2	22.3	7.0	7.5	3.5	13.3
	1949	97.9	11.9	5.4	20.3	9.9	12.1
	1950	77.2	3.7	4.1	7.7	11.7	13.4
	1951	118.1	14.8	8.5	8.4	19.0	14.2
	1948–51 average	97.1	13.2	6.3	11.0	11.0	13.3
	1950–51 average	97.7	9.3	6.3	8.1	15.4	13.8

TABLE G—*Continued*

	Year	All OEEC Countries	United Kingdom	France	Germany	Italy	Belgium-Luxembourg
Coal and related fuels	1938	0.3	—	0.1	—	—	—
	1948	168.8	—	92.7	0.5	45.7	7.8
	1949	85.6	—	38.9	—	35.2	—
	1950	7.5	0.9	0.9	0.3	1.0	0.8
	1951	279.6	11.4	54.1	57.4	46.4	17.4
	1948–51 average	135.4	3.1	46.7	14.6	32.1	6.5
	1950–51 average	143.6	6.2	27.5	28.9	23.7	9.1
Petroleum and products	1938	170.0	46.5	39.8	24.7	15.0	9.1
	1948	209.2	96.6	27.2	2.6	12.3	13.4
	1949	156.8	64.5	17.3	4.6	12.4	8.7
	1950	84.0	29.9	11.1	2.1	9.7	7.3
	1951	169.9	76.8	16.7	7.1	10.7	12.1
	1948–51 average	155.0	67.0	18.1	4.1	11.3	10.4
	1950–51 average	127.0	53.8	13.9	4.6	10.2	9.7
Iron and steel-mill products	1938	38.1	12.9	1.1	3.3	6.5	0.8
	1948	136.1	11.1	25.1	0.1	9.2	6.3
	1949	159.5	24.5	13.6	2.2	18.1	5.9
	1950	95.9	9.9	9.5	0.8	16.0	4.8
	1951	83.5	7.8	10.0	0.4	13.9	5.8
	1948–51 average	118.8	13.3	14.6	0.9	14.3	5.7
	1950–51 average	89.7	8.9	9.8	0.6	15.0	5.3

TABLE G—*Continued*

	Year	All OEEC Countries	United Kingdom	France	Germany	Italy	Belgium-Luxembourg
Machinery and vehicles	1938	187.5	63.3	24.6	4.5	4.8	19.1
	1948	794.0	136.5	136.9	1.7	45.9	95.8
	1949	755.6	136.6	128.6	17.0	62.0	101.8
	1950	652.6	78.9	130.7	15.7	93.9	89.4
	1951	588.4	76.5	111.5	15.7	93.6	85.5
	1948–51 average	697.7	107.1	126.9	12.5	73.9	93.1
	1950–51 average	620.5	77.7	121.1	15.7	93.8	87.5
Electrical machinery and apparatus	1938	21.5	9.9	2.4	0.1	0.9	1.5
	1948	64.2	5.8	6.7	0.4	1.7	11.2
	1949	83.5[a]	4.4	14.2	0.7	7.4	14.5
	1950	66.1	2.8	16.8	0.8	7.0	10.8
	1951	73.2	3.0	17.9	0.9	17.1	9.9
	1948–51 average	71.8	4.0	13.9	0.7	8.3	11.6
	1950–51 average	69.7	2.9	17.4	0.9	12.1	10.4
Industrial machinery	1938	50.8	28.0	9.0	2.0	1.6	1.3
	1948	256.1	77.6	52.7	0.5	6.7	22.0
	1949	338.7	80.1	61.0	8.9	41.8	32.6
	1950	338.5	46.9	76.9	10.1	65.3	33.8
	1951	305.0	55.6	68.6	10.4	65.0	19.0
	1948–51 average	309.6	65.1	64.8	7.5	44.7	26.9
	1950–51 average	321.8	51.3	72.8	10.3	65.2	26.4

TABLE G—*Continued*

	Year	All OEEC Countries	United Kingdom	France	Germany	Italy	Belgium-Luxembourg
Automobiles, parts and accessories	1938	67.9	8.2	7.4	1.2	0.3	14.6
	1948	136.7	4.3	4.3	0.4	1.3	45.9
	1949	104.1[4]	2.4	4.5	0.8	1.3	42.7
	1950	84.9[5]	1.0	4.4	0.5	1.8	34.3
	1951	122.1[5]	1.5	6.4	0.8	1.5	49.0
	1948–51 average	112.0	2.3	4.9	0.6	1.5	43.0
	1950–51 average	103.5	1.3	5.4	0.7	1.7	41.7
Chemicals and related products	1938	39.9	15.0	5.2	6.0	1.1	4.2
	1948	194.3	42.8	25.1	14.2	15.7	20.8
	1949	188.9	32.0	35.7	17.0	25.1	16.1
	1950	138.0	33.2	16.1	9.2	24.6	13.5
	1951	208.7	49.9	30.9	11.3	26.4	22.6
	1948–51 average	182.5	39.5	27.0	12.9	23.0	18.3
	1950–51 average	173.4	41.6	23.5	10.3	25.5	18.1

[1] For sources of data, see Table F, footnote 1.
[2] Textile fibers and manufactures, excluding raw cotton.
[3] Includes "special category" items.
[4] Includes "special category" items, and service equipment.
[5] Excludes "special category" items, and includes service equipment.

Rise in U.S. Share of World Textile Trade

Gertrud Lovasy*

PRIOR TO THE WAR, the greater part of the world's exports of textiles came from Western European exporters, including well over one third from the United Kingdom and about 40 per cent from continental Western European sources. Japan was the only major source of supply outside Europe, and U.S. textile exports accounted for only a minor fraction of world trade.

The postwar pattern is different: the share of Japan, in spite of rapid recovery in recent years, is still hardly more than half of what it was before the war; the share of the United Kingdom has declined to little more than one fourth of world exports; and the United States has become a major exporter, contributing, in 1951, 15 per cent to the trade of the main exporting areas, against only 5 per cent in 1937 (Table 1).

TABLE 1. VALUE OF TEXTILE EXPORTS, BY MAJOR SUPPLYING AREAS[1]

	United States	United Kingdom	Cont. OEEC Countries	Japan	India	Total
Billion U.S. dollars						
1937	0.1	0.65	0.8	0.35	0.05	1.9
1951	0.8	1.5	2.4	0.6	0.2	5.5
Percentage distribution[2]						
1937	5	36	39	18.5	1.5	100
1951	15	27	44	10	4	100

[1] The areas shown accounted, in 1937, for roughly 90 per cent of world exports of textiles.

[2] Percentages calculated before rounding of value figures.

Sources: Trade statistics of individual countries; Organization for European Economic Cooperation, *Statistical Bulletins: Foreign Trade*; International Monetary Fund, *International Financial Statistics*; The Cotton Board, *Quarterly Statistical Review* (Manchester, England).

Changes in the composition of export trade and unequal price movements, both for different products and for similar products from different sources, make it impossible to correct the statistics of world trade for price changes so as to make 1937 comparable with the postwar years. Data on world trade for major textile manufactures suggest, how-

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ever, that there has been little change in the over-all volume of textile trade and that the increased value is due entirely to higher prices. But there have been considerable shifts not only in the distribution of trade but also with respect to types of goods. Trade in cotton textiles, though still accounting for most of the total, has declined considerably. This has been offset by a sharp rise in trade in synthetic fibers and manufactures. There has been little change in trade in woolen goods.

Trade in cotton textiles

The postwar decline in world trade in cotton manufactures has been in line with the secular trend: trade in cotton textiles had dropped gradually from almost 10 billion square yards in 1909–13 to 8.5 billion in the twenties and less than 7 billion in the thirties. World trade in 1951 is estimated at not more than 5.6 billion square yards. This trend was due chiefly to the gradual rise in production in areas which formerly depended entirely or chiefly on imports. The drying up of export supplies from the customary sources during the war precipitated this development and gave rise to an expansion of U.S. exports of cotton textiles. Although, with the gradual recovery of output in other areas, U.S. exports declined from their early postwar peak, they retained a high share in world trade—about 15 per cent in 1951 against less than 4 per cent before the war.

The most striking features in the postwar structure of world trade in cotton textiles, compared with the prewar structure, are the sharp drop in its size; the decline in the exports of the two major suppliers, the United Kingdom and Japan, matched, on the import side, by a reduction in the quantities received by Latin America and the "rest of the world"; and the remarkable increase in U.S. exports in an altogether shrinking market.

As pointed out above, the drop in total trade is explained in part by the rising output in areas previously dependent on imports; the remarkable rise in India's exports, chiefly to deficit countries in Southeast Asia, is part of this development. But the rise in U.S. exports is out of line with that trend; and, at first sight, it would appear reasonable to attribute it to a shortage of supplies from other sources. This explanation, though valid in earlier years, has to be ruled out, however, as in 1951 the textile industries of both Europe and Japan were already faced with increasing difficulties in finding markets for their output. It also might be thought that the rise in U.S. exports was due to rising demand in particular markets which, for one reason or another, have traditionally received their supplies from the United States. But closer inspection of the postwar and prewar patterns of trade in cotton textiles by areas of origin and destination (Table 2) suggests that only a small

part of the increased exports of the United States went to markets which, before the war, had been accustomed to purchase a major share of their textile imports in the United States. The Philippines received larger quantities of U.S. exports, but Cuba's imports of U.S. cotton goods were no greater than before the war, and most of the additional U.S. exports went to markets which, before the war, had received their textile imports from other sources. The postwar expansion of U.S. exports has thus largely been a substitution for exports from other countries.

Canada's greatly expanded postwar imports have been supplied largely by the United States. The United Kingdom, previously the main source

TABLE 2. VOLUME OF TRADE IN COTTON TEXTILES, BY MAJOR EXPORTING AND IMPORTING AREAS[1]

(In billions of square yards)

Importing Areas	Exporting Areas: United States	United Kingdom	Cont. OEEC Countries	India	Japan	Rest of World[2]	Total Imports
			1937				
Canada	0.02	0.08	—	—	—	—	0.1
United Kingdom	—	—	—	—	—	—	—
Continental OEEC	—	0.2	0.2	—	0.1	—	0.5
Overseas sterling area	—	1.0	0.1	0.2	0.7	—	2.0
Latin America	0.13	0.2	0.2	—	0.3	—	0.8
Other[3]	0.09[3]	0.4	1.0	—	1.5	0.4	3.4
Total	0.24	1.9	1.5	0.2	2.6	0.4	6.8
			1951				
Canada	0.14	0.01	—	—	—	0.05	0.2
United Kingdom	—	—	0.1	0.1	0.1	0.1	0.4
Continental OEEC	—	0.1	0.4	—	0.1	—	0.6
Overseas sterling area	0.11	0.7	0.2	0.6	0.3	0.1	2.0
Latin America	0.19	—	0.1	—	—	0.1	0.4
Other[3]	0.36[3]	0.1	0.8	0.1	0.6	—	2.0
Total	0.8	0.9[4]	1.6	0.8	1.1	0.4	5.6

[1] The dollar value varies according to quality and source of supply. The average value per million square yards for exports from the United States during 1951 was $330,000, and from the United Kingdom, $425,000.

[2] Including unallocated.

[3] Of the exports to "other areas", the Philippines received 0.06 billion yards in 1937 and 0.12 billion yards in 1951.

[4] Including re-exports of processed imported cloth.

Source: Based on data from The Cotton Board, *Quarterly Statistical Review* (Manchester, England).

Note: A dash (—) indicates less than 0.05 billion yards.

of Canadian cotton goods imports, has almost entirely disappeared from that market. Far the largest part of U.S. postwar exports to the sterling area were directed to the Union of South Africa, again replacing, though not completely, U.K. trade. U.S. exports to Latin America have risen in spite of the sharp decline of total imports by that area. This decline, however, was due largely to the almost complete cessation of imports by Argentina, which before the war had received most of its supplies from European sources. Part of the rise in U.S. exports was due to the sharp rise in Venezuela's demand for textiles; lack of data makes it impossible to determine how far U.S. trade had increased in other Latin American markets as part of a general rise in Latin American imports, or had replaced imports from other sources.

The sharpest rise in U.S. exports was to "other areas" (including the Philippines). Exports to the Philippines doubled, but most of the additional supplies went to areas which previously had not or had hardly received any supplies from the United States, making up to some extent for previous imports from the United Kingdom and Japan.

Trade in synthetic fiber and woolen textiles

In contrast to the declining trade in cotton textiles, the world's total exports of synthetic textiles have expanded substantially since the war (Table 3). Japan, before the war the largest single exporter of rayon

TABLE 3. VOLUME OF EXPORTS OF SYNTHETIC FIBER GOODS, BY MAJOR EXPORTING COUNTRIES

	United States	Japan	United Kingdom	Italy	France	Germany	Other OEEC	Rest of World	World
Million square yards									
1937.....	19	500	38	91	40	26	8	48	770
1938.....	17	398	27	156	52	18	10	....	....
1948.....	210	—	124	74	38	7	26	....	....
1949.....	251	32	148	105	73	9	39	....	....
1950.....	180	200	171	171	87	24	76	11	920
1951.....	203	329	190	225	110	66	64	13	1,200
Percentage distribution									
1937.....	2.5	65	5	12	5	3	1	6.5	100
1951.....	17	27	16	19	9	5.5	5	1.5	100

Source: The Cotton Board, *Quarterly Statistical Review* (Manchester, England).

textiles, is the only country whose exports are still considerably below the high prewar level. But the reduction in Japan's exports has been far more than offset by expansion elsewhere, and the U.S. share, which

had been less than 3 per cent before the war, was 20 per cent in 1950 and 17 per cent in 1951.

There has been little change in the volume of trade in woolen goods, and U. S. exports in that sector have hardly expanded; the U. S. share in total exports of woolen goods is still negligible.

Development of Production and Trade in the United States

The expansion of U. S. textile exports during and after World War II was greatly facilitated by the fact that production in the United States—in contrast to developments elsewhere—had increased considerably during the war years. Output in 1941–45 exceeded the prewar volume by 50 per cent, thus permitting a high level of civilian consumption during the war. Data on consumers' expenditure on clothing indicate a gradual rise of domestic consumption throughout the war, largely attributable to rising income and the disappearance of practically all durable consumers' goods from the market. After the war, therefore, there was no backlog of demand for textiles in the United States; postwar expenditure on clothing (in constant prices) has been fairly stable, scarcely rising above the average wartime level. Production, on the other hand, has continued to rise, so that a considerable margin has been available for export (Table 4).

Thus, in recent years 5–10 per cent of the total cotton cloth produced in the United States has been exported, against only 2–3 per cent before the war. Developments in the rayon industry have been similar; production of rayon textiles has been more than double the prewar output and the share of exports has risen from 2 per cent of output in 1937 to 11 per cent in 1949 and 10 per cent in 1951. Cotton cloth and rayon account for the greater part of U. S. textile exports; exports of woolen goods are much less important, although the wool industry has shared in the general increase in U. S. textile output. There had been a temporary rise in exports during the war; but it subsided quickly and in recent years exports of woolen goods have again been of little significance. Most of the industry's output is absorbed in the domestic market, and is supplemented by increasing imports.

The relative shares of the three major sectors in total U. S. textile exports can be derived from Table 5. Cotton manufactures, the leading item, accounted for almost two thirds of the value of all textile exports before the war. In recent years, their share has declined as exports of synthetic fiber products have rapidly expanded, but they still account for more than half of the value of U. S. textile exports. The share of synthetic fiber products, on the other hand, has risen from just over 10

TABLE 4. VOLUME OF U.S. PRODUCTION, DOMESTIC CONSUMPTION, AND EXPORTS OF TEXTILES[1]

	1937	1941–45	1948	1949	1950	1951
All textiles (*1935–39 = 100*)						
Production	104	151	168	146	180	172
Consumers' expenditures	101	150	154	151	153	149
Exports	103	310	450	370	280	400
Cotton piece goods (*million square yards*)						
Production	8,800		9,900	8,600	10,100	10,100
Exports	240		940	880	560	800
Exports as per cent of production	2.5		9.5	10.1	5.5	8.0
Rayon piece goods (*million square yards*)						
Production	1,000		2,400	2,200	2,700	2,100
Exports	20		210	250	180	200
Exports as per cent of production	2.0		8.7	11.1	6.7	9.9

[1] Based on data from U. S. Department of Commerce, *Survey of Current Business*; and The Cotton Board, *Quarterly Statistical Review* (Manchester, England). The indices of consumers' expenditures and of exports are based on value figures, deflated by the retail price for clothing and by the wholesale price for textiles, respectively. In attempting to harmonize the indices listed, the significance of inventory variations should be borne in mind.

TABLE 5. VALUE OF U.S. TEXTILE EXPORTS, BY MAIN SECTORS

(In millions of U.S. dollars)

	Cotton Yarn and Manufactures[1]	Synthetic Yarn and Manufactures[1]	Wool Yarn and Manufactures	Other Textile Products	Total
1937	60	10	3	23	96
1941–45 average	186	49	79	52	366
1946	376	141	119	98	754
1947	853	308	88	126	1,375
1948	499	231	45	69	844
1949	366	205	31	54	656
1950	264	177	24	51	516
1951	477	226	36	80	819

[1] These figures refer to yarn, piece goods, and made-up fabrics, thus covering a wider range than the volume figures shown in Table 4. Piece goods account for roughly half of the values shown.

Sources: U. S. Department of Commerce, *Statistical Abstract of the United States, 1951* (Washington, 1952); U. S. trade statistics.

per cent of total textile exports in the late thirties to around 30 per cent in recent years. Exports of woolen goods were less than 5 per cent of total textile exports both in 1937 and in 1949–51.[1]

The distribution of U. S. textile exports to major markets (Table 6) shows an increase in practically all parts of the world, with the notable exception of the United Kingdom.

The volume and distribution of U. S. textile exports in 1948 and, to some extent, also in 1949 were still largely the result of high postwar requirements in the receiving areas and of a low level of supplies from other sources. The large shipments to the Philippines in these two years were decidedly of such an "emergency" character; the same is true of the abnormally large supplies to Malaya in 1948, which accounted for the high figure shown for exports to the overseas sterling area in that year. The gradual tapering off of the high postwar demand, coupled with the increase of supplies available from other sources, and, no doubt, also the increasing restrictions against dollar imports, were responsible for the decline in U. S. exports in 1949 and 1950. The rise in dollar earnings in the second part of 1950 and throughout 1951, with the subsequent relaxation of restrictions in a number of countries, made, however, for a renewed upward movement of U. S. textile exports. In 1951, the volume and direction of these exports were no longer determined by emergency needs and short supplies from other sources. Actually, from the middle of 1951 on, the major exporting countries found it increasingly difficult to secure markets for their products. Thus, both the volume and the distribution of U. S. textile exports in 1951 came close to a "normal" pattern established by competitive market conditions.

Development of Production and Trade Outside the United States

In contrast to developments in the United States, textile production in most other parts of the world declined sharply during the war. This fact, coupled with expanding military requirements, led to a stringent shortage of civilian supplies, and consumption in many countries, controlled by severe rationing, was reduced to low levels. The postwar recovery of textile production was slow, and for several years the available supplies were insufficient to meet the backlog of demand which had developed in practically all areas outside the Western Hemisphere. By 1950, however, output in most regions had again reached, or even exceeded, the prewar volume, Japan and other parts of Asia (notably China) being the only significant exceptions.

[1] Woolen goods, on the other hand, are the largest item in total U. S. textile imports; in 1951 they accounted for 40 per cent of the total.

TABLE 6. VALUE OF U. S. TEXTILE EXPORTS, BY MAIN MARKETS

(In millions of U. S. dollars)

	Canada	Cuba	Other Latin America	Cont. OEEC Countries	United Kingdom	Overseas Sterling Area[1]	Philippines	Indonesia	Rest of World	Total
1938	10	12	18	8	8	7	18	1	10	92
1938 in 1951 prices[2]	25	30	45	20	20	18	45	2	25	230
1948	74	59	187	67	22	161	112	10	154	846
1949	72	43	144	....	12	52	103	20	....	656
1950	67	62	143	72	4	24	41	29	74	516
1951	99	59	170	103	15	88	94	47	144	819
1951 as per cent of 1938[3]	400	200	380	500	75	500	210	700		350

[1] Union of South Africa, Australia, New Zealand, and Malaya.

[2] These figures have been derived by inflating current 1938 values by the U. S. wholesale price for textiles, not taking account, however, of differences in the composition of exports to the various areas. Consequently, the figures should be considered only as rough indications of the magnitudes involved.

[3] The 1938 figures used are 1938 exports at 1951 prices.

Source: U. S. trade statistics.

World output of textiles in 1950 has been estimated at some 10–12 per cent more than before the war,[2] but the expansion was unevenly distributed. As shown above, U. S. production rose more than 50 per cent; production in Latin America, which had grown rapidly during and after the war, surpassed prewar output by roughly 60 per cent, chiefly on account of the spectacular expansion of Argentina's cotton industry. Argentina, which before the war had been the heaviest importer of textiles in Latin America, has now become almost self-sufficient. Production in most other Latin American countries has also increased considerably, so that the import demand in the area as a whole has declined sharply. On the African continent, Egypt has more than doubled its prewar output and its imports of textiles have dropped to a fraction of the prewar total. Egypt now even exports small quantities of cotton yarn. Total African import demand for textiles, however, has not declined. Australia has greatly expanded both its cotton and its wool industries, with little change in import demand. The total output of textiles in Asia (excluding Japan) was lower in 1950 than before the war, chiefly on account of the heavy drop in China's production. India, on the other hand, has stepped up output and has turned from a net importer into a net exporter of sizable quantities.[3] Pakistan and Thailand are rapidly developing domestic textile industries, but for the larger part of their consumption they still depend on imports. Japan, before the war the largest exporter of cheap cotton and rayon textiles, had, in the early postwar period, completely disappeared from the market; prior to 1947, production amounted to hardly more than 10–15 per cent of prewar output. By 1950 both production and export trade had recovered to almost half of the prewar volume; and by the end of 1951, output had risen further, to roughly 70 per cent of prewar output (Table 7). Declining export demand put a brake upon further expansion.

Asia (including Japan) is the only major region where, mainly because of a reduction in available supplies,[4] per capita consumption of textiles in 1950 was considerably below the prewar level. In most other parts of the world, including the United Kingdom and Western Europe, consumption levels in 1950 appeared to be higher than before the war.

Production in the major Western European producing and exporting

[2] These and the following figures on production are based chiefly on data for mill consumption of raw cotton and wool and output of rayon yarn and staple fiber. For basic data see Food and Agriculture Organization, *Per Caput Fiber Consumption*, Commodity Series, Bulletin No. 21, December 1951.

[3] This is not due to the fact that supplies to Pakistan are now being considered as exports. Shipments to Pakistan are mostly via land and India's export data refer to seaborne trade only. Recorded textile shipments to Pakistan are negligible.

[4] Supplies had fallen by 25–30 per cent; the growth of population by some 10 per cent further reduced per capita consumption.

TABLE 7. VOLUME OF JAPANESE PRODUCTION AND EXPORTS OF TEXTILES

(Production and export figures in millions of square yards)

	Cotton Textiles			Rayon Textiles		
	Production	Exports	Exports as per cent of production	Production	Exports	Exports as per cent of production
1937	4,794	2,644	55	1,297	485	37
1938	3,297	2,181	66	1,566	337	22
1949	984	744	76	190	33	17
1950	1,542	1,088	71	606	198	33
1951						
1st half[1]	2,068	1,197	58	796	312	39
2nd half[1]	2,365	967	41	826	347	42

[1] Annual rate.

Source: The Cotton Board, *Quarterly Statistical Review* (Manchester, England).

countries recovered slowly but, by 1950, output had reached or surpassed the 1938 level. These countries were faced with a large backlog of domestic demand, and the data in Table 8 suggest that—with the possible exception of the United Kingdom and Germany—up to 1950 the proportion of output consumed on the home market was larger than in 1938.

TABLE 8. INDICES OF TEXTILE PRODUCTION AND CONSUMPTION, BY MAJOR WESTERN EUROPEAN COUNTRIES[1]

(1938 = 100)

	Production				Apparent Per Capita Consumption[2]		
	1948	1949	1950	1951	1948–49	1950	1951
United Kingdom	95	102	112	111	95	105	97
France	102	101	109	115	110	108	105
Italy	96	99	103	109	120	125	....
Germany	46	80	106	118	65	119	108
Belgium	116	120	142	146	115	110	104
Netherlands	105	122	136	135	120	160	....

[1] The six countries shown account for more than 80 per cent of production and for more than 90 per cent of exports of Western Europe.

[2] These figures are generally below those for production, on account of population growth.

Sources: Production indices are from Economic Commission for Europe, *Economic Bulletin for Europe*. Consumption indices (output minus net exports) for 1948–50 are based on fiber consumption data given in Food and Agriculture Organization, *Per Caput Fiber Consumption*, Commodity Series, Bulletin No. 21, December 1951; the 1951 figures have been linked by using postwar consumption indices published in *Economic Bulletin for Europe*.

The figures for the United Kingdom shown in Table 8 tend to exaggerate the degree of postwar recovery. Production data for individual sectors of the textile industry indicate that output in 1938 (the base year used in the table) was considerably below the average in the preceding years.[5] It has not been possible, however, to use a different base period, since the production index (interim index of the Central Statistical Office) has not been extended to prewar years prior to 1938.

When a comparison is made with production in 1935–36, it is seen that cotton textile production in the United Kingdom has reached only two thirds of the prewar volume (Table 9). This has not been wholly unintentional, however. The industry, relying heavily on export trade, had suffered for many decades from a declining demand in its overseas markets. The development of domestic textile production in these markets and the growing competition from Japan had reduced U.K. exports of cotton goods from some 3.5–4 billion yards (75 per cent of production) in the twenties to less than 2 billion yards in the late thirties. Immediately after the war, however, the U.K. cotton textile industry was faced with an almost unlimited demand. Recovery was severely hampered by a shortage of labor, and the expansion of export trade was restrained by the low level of production. Domestic consumption was still controlled by severe rationing and domestic output was supplemented, at an increasing rate, by imports of grey cloth, mainly from India and Japan, for processing and re-export.[6] Up to the middle of 1949, the problem of increasing output by promoting efficiency seemed to be most in the foreground. Various steps in that direction were taken by the Government; yet re-equipment proceeded only slowly. This was explained primarily by the reluctance of the industry to invest in expensive equipment, as the booming demand of the early postwar years was not expected to continue.

U.K. exports of cotton cloth reached a peak in the first half of 1949; the industry was subsequently faced with a slackening export demand, largely on account of the growing competition from Japan and the emergence of India as a major exporter.

Devaluation has not led to any expansion of U.K. cotton textile exports: their volume in 1950 did not even reach the 1949 level. Most U.K. exports are absorbed, however, by the overseas sterling area, which shared in the devaluations, and where, therefore, devaluation did not lower U.K. prices vis-à-vis those of local suppliers. Japan re-

[5] The same applies to the figures shown for Belgium, where production in 1938 was particularly low. In the other countries listed in the table, output in 1938 did not differ substantially from the average in the preceding years.

[6] In view of the finishing process they undergo, these re-exports are not treated as such in the U.K. trade returns but are included with regular exports. Thus, the export figures shown in Table 9 include these re-exports.

TABLE 9. VOLUME OF U.K. PRODUCTION AND TRADE IN COTTON, RAYON, AND WOOL TEXTILES

(Production and trade figures in millions of yards)

	Cotton Piece Goods				Rayon Piece Goods		Wool Piece Goods	
	Production	Exports	Imports	Net exports as per cent of production	Production	Exports	Production	Exports
1935	3,070	1,940	30	62	380	52	439	117
1936	....	1,920	40	....	....	67	....	125
1937	3,640	1,920	50	51	484	80	475	130
1938	2,104	1,375	50	63	....	63	466	96
1948	1,900	760	230	28	499	157	415	114
1949	2,000	900	350	28	588	185	439	116
1950	2,120	830	290	25	707	216	450	127
1951	2,200	860	380	22	759	246	418	119
1951								
1st half[1]	2,240	910	390	23	770	249	453	137
2nd half[1]	2,160	790	360	20	744	243	383	100

[1] Annual rate.

Sources: Central Statistical Office, *Monthly Digest of Statistics*. The 1938 production figures are based on data expressed in metric tons published in Organization for European Economic Cooperation, *Statistical Bulletins: General Statistics* and *Foreign Trade*.

duced its export prices, and the relation of U.K. to Indian prices was not affected by the devaluation. But exports of cotton cloth to Canada were also not favorably affected; export prices in Canada declined a little, but not sufficiently to meet U.S. competition (see Table 14).

The post-Korea boom resulted in a temporary revival in demand for U.K. cotton goods; but in the second half of 1951 exports declined again, and there was some contraction of output. In March 1952 the Government, in order to help the industry, suspended imports of grey cloth for processing and re-export from Japan; it also reduced the domestic purchase tax on textiles. Supply shortages no longer present a problem and present attempts are rather in the direction of securing a higher level of demand.

In contrast to developments in the cotton industry, both output and exports of U.K. woolen textiles have been restored to prewar levels. Up to the middle of 1951, when exports suffered a severe setback in the course of the general recession in the textile industry, exports had gradually increased, the rise in U.S. consumption of woolen goods being partly met by increased imports from the United Kingdom.[7]

TABLE 10. INDICES OF VOLUME AND PRICES OF TEXTILE EXPORTS FROM UNITED KINGDOM AND UNITED STATES

	Volume (*1937 = 100*)		Prices (*1938 = 100*)	
	U.K.	U.S.	U.K.[1]	U.S.[2]
1948	70	450	270	225
1949	73	370	....[3]	210
1950	70	280	255	220
1951	71	400	325	250
1951				
1st half[4]	75	400	305	265
2nd half[4]	66	400	345	235

[1] Dollar index.
[2] Wholesale prices for textiles.
[3] January–September, 280; October–December, 240.
[4] Annual rate.
Sources: Data for the United States are from U.S. trade returns and U.S. Department of Commerce, *Survey of Current Business*. Those for the United Kingdom are from Board of Trade, *Report on Overseas Trade*.

U.K. production and exports of synthetic fiber products have also increased rapidly in line with the general upward trend in that sector of textile production. But owing to the sharp decline in the cotton textile trade, the total volume of U.K. textile exports in the postwar years has not exceeded 75 per cent of the prewar volume. This is in sharp contrast to the development of U.S. textile exports (Table 10).

[7] U.K. exports of woolen goods to the United States have increased from some 7–8 million square yards in 1936 and 1937 to over 13 million in each of the years 1950 and 1951.

In continental Western Europe the postwar restoration of both production and consumption of textiles has tended to go further than in the United Kingdom. Production of cotton textiles in the five major producing countries—France, Italy, Germany, Belgium, and the Netherlands—has been higher in recent years than before the war; in 1951 their total output was some 20 per cent above the 1938 level. Exports have not expanded at the same rate and a larger proportion of output is being consumed in the domestic markets. This is true not only for the group as a whole but also for each country (Table 11). Moreover, a considerably larger share of the exports of some countries is now absorbed by other Western European countries: France and the Netherlands have been supplementing domestic production by substantial imports, mainly from Italy and Belgium.

Synthetic fiber output is expanding in all the major producing countries of Western Europe. Production for the entire continental OEEC area in 1951 was about twice the prewar volume. Most of it is being used in the producing countries, largely for blending with natural fibers. Output of pure rayon does not seem to have increased much beyond its prewar volume but—in contrast to cotton textiles—a larger proportion of production is being exported. Total exports from OEEC countries in 1951 amounted to about 450 million yards, roughly twice the 1937 exports.

Data on the volume of total export trade in textiles from continental OEEC countries are not available, but those on cotton and rayon textile exports suggest that the over-all export volume is slightly greater than before the war.

It has not been possible to obtain conclusive data on price developments for continental European textile exports. A very rough indication can be derived, however, from a comparison of changes in the volume of exports of cotton, rayon, and wool yarn and cloth with the dollar value of the total textile trade of the major exporting countries. This comparison suggests that the export prices of Italian, Belgian, and Dutch textile exports have moved roughly in line with U. K. export prices as shown in Table 10. The rise seems to have been much more moderate for German and much steeper for French textile exports. The considerable expansion of French textile exports, in spite of this development, can be explained by the fact that a large proportion is absorbed by the country's overseas territories where French exports enjoy preferential treatment.

The postwar trend toward directing a larger share of textile exports to sheltered markets is shown clearly in Table 12, which compares the prewar and postwar distribution of textile exports by main areas for the United Kingdom, France, Italy, and Germany. The ratio of U. K.,

French, and Italian exports to the Western Hemisphere to their total exports has sharply decreased; for the United Kingdom and Italy, the drop has been pronounced vis-à-vis Latin American markets, but exports to the United States and Canada also have been affected. French

TABLE 11. VOLUME OF PRODUCTION AND TRADE IN COTTON TEXTILES OF FIVE MAJOR PRODUCERS IN CONTINENTAL WESTERN EUROPE

(Production and trade figures in thousands of quintals)

	1937	1938	1948	1949	1950	1951	1951 as Per Cent of Prewar Volume[1]
France							
Production	....	2,080	1,510	1,725	2,035	2,195	105
Exports	350	430	230	390	390	415	97
Imports	8	5	65	73	222	151	
Net exports as per cent of production	....	20	11	18	8	12	
Italy							
Production	905	940	1,125	1,095	1,180	1,235	132
Exports	450	410	150	235	340	370	87
Imports	5	5	1	2	4	4	
Net exports as per cent of production	49	43	13	21	28	30	
Germany							
Production	....	1,740	755	1,450	1,900	2,170	125
Exports	215	205	195	190	125	235	112
Imports	50	53	5	47	77	31	
Net exports as per cent of production	....	9	25	10	3	9	
Belgium							
Production	528	495	626	594	736	795	155
Exports	170	146	82	118	229	246	150
Imports	10	7	9	7	24	23	
Net exports as per cent of production	30	28	12	19	28	28	
Netherlands							
Production	637	570	455	530	589	601	100
Exports	227	204	121	150	154	178	87
Imports	39	20	39	66	180	111	
Net exports as per cent of production	30	32	18	16		11	
Five Countries, Total							
Production	....	5,800	4,500	5,400	6,400	7,000	120
Net exports	....	1,300	700	900	700	1,100	86

[1] 1937–38 average, except for France, Germany, and Total Five Countries, where 1938 was taken as the base.

Source: The Cotton Board, *Quarterly Statistical Review* (Manchester, England).

TABLE 12. PERCENTAGE DISTRIBUTION, BY MAIN AREAS, OF TEXTILE EXPORTS OF FOUR EUROPEAN EXPORTERS

	United Kingdom		France		Italy		Germany	
	1937	1951	1937	1951	1937	1951	1937	1951
United States	5.9	5.7	7.0	3.5	5	3	1	7
Canada	6.1	5.7	0.5	0.5	15	1	—	—
Latin America	12.4	4.0	7.0	6.5		4	9	4
Total Western Hemisphere	24.4	15.4	14.5	10.5	20	8	10	11
Continental OEEC [1]	24.0	22.4	21.0	23.0	25	33	45	55
Continental OEEC dependent overseas territories	[2]	1.2	44.0	46.5	[2]	2	[2]	2
Total		23.6	65.0	70.0		35		57
United Kingdom	—	—	12.5	8.0	4	15	13	13
Overseas sterling area	37.0	54.8	8.0	4.9	51	30	32	14
Rest of world	14.6	6.2		6.6		14		7

[1] Including Ireland.
[2] Included with "Rest of world".
Sources: Organization for European Economic Cooperation, *Statistical Bulletins: Foreign Trade.*

textile exports to Latin America, which never have been substantial, have been better maintained than those of the other three countries, but French exports to the United States have declined. Germany is the only one of the four countries shown which has expanded textile exports to the United States. It is, at first sight, tempting to relate this expansion to the much more moderate rise in German export prices; the total dollar value involved is small, however, and no firm conclusion could be drawn without further investigation.

The main shift in the distribution of Germany's and Italy's textile exports has been toward OEEC markets; there has been little change in the distribution of French exports, though there, too, there has been a tendency to sell a larger share to continental OEEC countries and to the dependent overseas territories. The most striking development in the distribution of U.K. exports has been the increased share directed to the sterling area with a corresponding decline in the shares of all other markets.

Reasons for Rise in U.S. Share in World Textile Trade

The first impetus to the rise in U.S. postwar textile exports was no doubt given by the low level of output in practically all major producing areas outside the Western Hemisphere and the considerable backlog in

demand after years of stringent shortages and severe rationing. In the immediate postwar years, part of these exports were provided under UNRRA and other relief programs; in recent years, however, they have moved on a purely commercial basis. ECA aid financed raw cotton exports, but it was not used to purchase textile manufactures.

The high level of U. S. textile exports in recent years can, however, no longer be explained by shortages elsewhere. The expansion and penetration of new markets in the early postwar years has indeed been a contributing factor, for importing countries frequently tend to adjust themselves to certain brands and to continue buying them unless prices and quality advantages induce a return to previous sources of supply. But the available data suggest that such advantages have not been offered.

Price comparisons

A comparison of the export prices of other major exporters of cotton and rayon goods with U. S. prices shows that, with few exceptions, prices of European countries throughout the three years, 1949–51, were considerably above those charged by the United States (Table 13). For only one category—white bleached cotton cloth—were prices in 1950 and 1951 below those of the United States. According to U. S. trade data, only 10 per cent of total U. S. cotton cloth exports consisted of white bleached cloth; grey cloth accounted for 20–25 per cent; the bulk consisted of printed, dyed, and colored goods. Prices of exports from India and Japan have, on the whole, been considerably below U. S. prices, but these differences were probably due largely to inferior qualities.

As was to be expected, the price differentials on European exports were largest in 1949 (first nine months). After the devaluations the margins narrowed but, with the exception of white bleached cloth, no European prices of either cotton or rayon cloth were lower than those of the United States. In 1950, prices of French and Italian rayon yarn were temporarily less than the U. S. price, but in the following year these margins had again almost disappeared.

These comparisons suggest that the lower prices of U. S. textiles have been among the factors responsible for the continued large share of the United States in cotton and rayon textile export markets. It should be noted, however, that currently published trade data are not sufficiently detailed to permit the selection of strictly comparable items, so that the recorded price differences may to some extent be based on quality differences. Information on the qualities exported by European countries suggests, however, that they are not, on the average, superior to those exported by the United States. U. K. exports are a mixture of textiles produced entirely in the United Kingdom and of re-exports of low-grade

TABLE 13. EXPORT PRICES (UNIT VALUES) FOR COTTON AND RAYON TEXTILES OF MAJOR EXPORTING COUNTRIES, COMPARED WITH U. S. PRICES, FIRST NINE MONTHS OF 1949, 1950, AND 1951

(U. S. export price = 100)

	United Kingdom	France	Germany	Italy	Japan[1]	India
Cotton Cloth						
Grey, unbleached						
1949	202	184	151	154	115	108
1950	147	147	132	132	92	74
1951	159	154	139	149	120	68
White, bleached						
1949	137	117	98	110	....	108
1950	96	90	73	71	....	62
1951	90	81	80	83	....	61
Printed						
1949	178	171	134	156	90[2]	132[2]
1950	126	140	114	119	79[2]	82[2]
1951	119	120	118	120	96[2]	70[2]
Dyed in the piece						
1949	156	141	107	128	....	....
1950	116	115	117	107	....	....
1951	108	101	122	103	....	....
Colored						
1949	196	155	111	136	....	....
1950	139	122	118	115	....	....
1951	130	104	117	110	....	....
Rayon						
Yarn						
1949	139	121	102	125	....	....
1950	109	82	113	94	....	....
1951	121	96	113	100	129	....
Cloth, printed						
1949	180	226	124[4]	136	64[4]	....
1950	133	146	152[4]	106	61[4]	....
1951	127	129	123[4]	125	79[4]	....
Cloth, dyed						
1949	174	195	....	142	....	....
1950	127	137	....	114	....	....
1951	121	121	....	131	....	....

[1] 1951 data calculated on basis of exports of first six months.
[2] All cotton cloth except grey.
[3] Dyed, printed, and colored.
[4] Dyed and printed.

Source: Based on data from Economic Commission for Europe, *Economic Survey of Europe in 1951* (Geneva, 1952).

grey goods chiefly imported from Japan and India and processed (bleached, dyed, etc.) in the United Kingdom. For its domestic production, the United Kingdom is using a high proportion[8] of Egyptian and Sudanese raw cotton which yields high quality goods, higher than the average produced in the United States. In recent years, however, well over one third of the total volume of U. K. cotton goods exports consisted of re-exports, so that the average quality of U. K. cotton goods exports was probably not superior to those of the United States.[9]

Most of the cotton and rayon piece goods exported by France are shipped to French overseas territories and are probably of qualities inferior to those of U. S. or U. K. exports. This suggests that the French figures shown in Table 13 tend to understate actual price differences.

It has been claimed by European producers that the higher prices charged for raw cotton in markets outside the United States have placed them at a competitive disadvantage vis-à-vis U. S. producers. Up to the autumn of 1950, however, these "soft currency" premia (price differentials in excess of those due to differences in quality) were moderate. Moreover, a large proportion of the raw cotton used by European exporters originated in the United States. In the last quarter of 1950, when the United States, in view of a poor domestic cotton crop, imposed severe restrictions on raw cotton exports, prices of non-U. S. cotton rose much more than those for cotton in the United States. Thus, in the first three quarters of 1951, U. S. cotton textile producers benefited from lower prices for their raw materials. But the temporary competitive disadvantage thus created for other producers was considerably modified by the simultaneous sharp rise of prices of U. S. cotton textiles.[10]

One reason for price (and cost) differences between European and U. S. products of both cotton and rayon textiles appears to be greater efficiency in the United States. The findings of productivity teams[11] which have examined production methods in the textile industries of the United States and the United Kingdom support this view. Productivity in the cotton-spinning industries was compared in terms of operative hours needed for the production of 100 pounds of yarn. It was found that the average number of operative hours required by the U. K.

[8] Import data show that in recent years roughly one third of U. K. raw cotton mill consumption consisted of Egyptian and Sudanese growths.

[9] Reports with respect to the quality of U. S. and U. K. textile exports to markets where the former has tended to replace U. K. supplies support this conclusion.

[10] Mill margins in the United States (i.e., the differences between the cloth price and the price for raw cotton) increased from an average of 35 cents in the 1949–50 season to 46 cents in 1950–51, indicating a substantial rise in profits during that period. Comparable figures for European producers cannot be obtained.

[11] These teams were sponsored by the Anglo-American Council on Productivity formed late in 1948 on the initiative of Sir Stafford Cripps and Mr. Paul Hoffman.

industry as a whole exceeded those in the United States by 138 per cent; the hours required by the 25 U. K. mills with the best labor utilization averaged 93 per cent above the United States. The reasons given for the high productivity of U. S. mills are the use of better (more modern) machinery, more efficient utilization of labor, and a number of technical processing factors as well as factors relating to management-labor relations. The productivity team on cotton weaving attributed the higher productivity in the United States chiefly to the wide use of automatic looms. Moreover, even where automatic looms were used in the United Kingdom, they were run with considerably more supervision than in the United States. One weaver in the United States may attend as many as 104 looms, against 16–24 in the United Kingdom.

A recent study by the International Labour Office[12] suggests that, late in 1949, money wage rates in the U. K. cotton industry—in both the spinning and weaving sectors—were roughly one third of comparable U. S. wage rates. On that basis, the lower productivity in the U. K. spinning sector would seem to have been compensated by lower wages. In the weaving sector, however, this does not seem to have been true.

U. S.-U. K. competition in the Canadian market

The postwar redirection of Canadian demand for textile imports has gone so far as to make it useful to conclude this study with some more detailed observations on this case. In the Canadian market, the United States has replaced the United Kingdom as the major supplier of cotton textiles. The main reasons given for this development are lower prices, superior quality and better styling of U. S. products, supply according to sample, shorter and more dependable delivery terms, and more effective advertising by the United States.

The trend of cotton cloth imports into Canada seemed to offer a good test case for determining how far price differentials can be held responsible for the expansion of U. S. export trade. Quantities imported and unit values of imports from the United States and the United Kingdom have been compared for two categories of cotton cloth: "not bleached, mercerized, or colored" and "printed and dyed" (Table 14). Although in the postwar years, when the United States supplied most of Canada's cotton cloth imports, unit values for imports from the United States tended to be substantially below those of the United Kingdom, the results are not entirely conclusive. Even before the war, U. S. unbleached cloth had had a price advantage, but at that time Canadian imports were almost equally divided between the United Kingdom and the

[12] *Textile Wages, an International Study* (Geneva, 1952).

TABLE 14. VOLUME AND UNIT VALUE OF CANADA'S COTTON CLOTH IMPORTS FROM UNITED KINGDOM AND UNITED STATES

	Not Bleached, Mercerized or Colored				Printed and Dyed			
	Volume		Unit Value		Volume		Unit Value	
	United Kingdom (*million lbs.*)	United States (*million lbs.*)	United Kingdom (*Can. cents per lb.*)	United States (*Can. cents per lb.*)	United Kingdom (*million lbs.*)	United States (*million lbs.*)	United Kingdom (*Can. cents per lb.*)	United States (*Can. cents per lb.*)
1936[1]	2.7	2.4	30	24	6.1	1.5	53	67
1937[1]	2.8	3.6	33	27	6.5	1.9	50	66
1938[1]	3.9	3.7	38	28	5.4	2.5	58	62
1947	0.3	38.7	82	86	0.7	17.9	252	172
1948	1.7	20.4	103	93	3.3	7.5	208	172
1949	0.6	20.6	116	76	3.0	8.8	200	162
1950	0.24	14.3	114	86	1.6	8.4	164	172
1951	0.16	14.4	121	98	1.0	10.2	200	179

[1] Year ended March 31.
Source: Canadian trade statistics.

United States.[13] Since the war Canadian imports of unbleached cloth have risen sharply, but practically all has been supplied by the United States. Prices have risen for both U. S. and U. K. imports and the differential has widened in absolute terms, but the relative price advantage of the United States has not increased, in comparison with the prewar period. It therefore would appear that factors other than lower prices must have contributed to the shift in sources of supply.

Price behavior appears to offer a satisfactory explanation of changes in the import pattern for "printed and dyed" cloth. Before the war U. S. prices were higher than those of the United Kingdom, and imports were mostly derived from the cheaper source. After the war the price differential was reversed—U. K. imports had become considerably dearer. The response of imports was as it should be: imports from the United States increased and those from the United Kingdom declined. There was no response, however, to the temporary reversal of the price advantage in favor of the United Kingdom after the devaluation. The margin was small—only 5 per cent—which, in the short run, may not suffice to induce a shift; but in the following year U. K. prices had again risen beyond those of the United States. It is just possible, though not certain, that imports would have been shifted if the price differential in favor of the United Kingdom had lasted longer.

These comparisons suggest that price considerations have been one but not the sole factor responsible for the substitution of U. S. for U. K. cotton cloth imports in the Canadian market. This shift came about during the war when supplies from the United Kingdom were hard to obtain and U. S. sources proved to be convenient, largely on account of the closeness of the market, which permitted quick delivery. Thus, Canadian importers can avoid the burden of carrying large stocks since new supplies can be obtained on short order. More effective advertising by the United States has been mentioned as an important factor; in this respect, U. S. exporters have an incidental advantage in the Canadian market, as U. S. trade journals and newspapers carrying advertisements primarily intended for the domestic market are widely read in Canada. These factors, no doubt, add to the attractiveness of importing from the United States, and it would seem that nothing short of considerable price concessions by U. K. exporters could swing the Canadian market back to its prewar sources of supply.

[13] The group "not bleached, mercerized, or colored" is too broad to exclude quality differences and it may well be that imports from the United Kingdom were of superior quality.

Monetary Policy in Postwar Years

I. G. Patel*

AFTER A DECADE or so of comparative disuse, a number of countries have, in recent years, turned increasingly to an active use of monetary policy. There is nothing monotheistic about this revival. It is generally appreciated that monetary techniques can be fully effective only in combination with proper budgetary and other policies.

Monetary policy itself is being revived in a form somewhat different from the one familiar in prewar days. In addition to the simple classical techniques of discount rate changes and open market operations, central banks have added a variety of new and complex weapons to their armory. The underlying economic situation has changed in many countries, and now that the usefulness of monetary policy in general is widely recognized, the chief point of interest about its recent revival is the manner in which it is being adapted to the present needs of different countries. Granted the need for its active use, the question that becomes important is the choice of the proper techniques for the purpose.

In this analysis of monetary policy during the years since World War II, attention will first be directed to the factors that led to the comparative neglect of monetary policy during the forties and to the forces responsible for its revival in recent years. Then a brief general survey of the different monetary techniques and their comparative usefulness will be given.[1]

In the later sections of the paper, the monetary techniques employed in the postwar years by six countries—the United States, the United Kingdom, Belgium, France, Germany, and the Netherlands—will be surveyed. A rather broad span of years is chosen so as to provide a proper perspective for recent developments. The emphasis throughout is on the techniques used, and on the different ways in which different countries have tackled similar problems. Needless to say, circumstances differ sufficiently in these six countries to warrant development along different lines; and attention is given to these differences.

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[1] This paper was prepared in the autumn of 1952. Developments since then are not discussed here.

The Changing Emphasis on Monetary Policy

The depressed condition of the thirties had established low interest rates everywhere; and during World War II, rates were reduced still further in most countries. The gigantic task of war finance had made direct controls and heavy taxes absolutely necessary, and it was felt that, under these circumstances, little more could be gained by monetary incentives or restraints. But the de-emphasis on monetary policy persisted for a few years even after the end of the war. Most countries had inherited abundant surplus money from the war. If monetary policy is successful mainly in checking the growth of new money, it cannot be of much use so long as people have large amounts of surplus old money. Concern about the cost of the public debt, a desire to maintain low housing costs, and concern about a possible postwar recession added to the bias toward cheap money. Even when the dreaded depression failed to appear, it was felt that the need for rapid recovery after the destruction and dislocation caused by the war required easy money conditions.

In addition to these considerations, there were certain ideological and theoretical factors that led to the abeyance of monetary policy. "The euthanasia of the rentier" by keeping interest rates low had come to be a popular theme. At the same time, it was thought unjust to raise interest rates on government securities and thus inflict capital losses on people who had been persuaded to buy government bonds by promises of future rewards. On the theoretical plane, the ideas of the thirties had cast doubts on the ability of interest rate changes to influence significantly either savings or investment. Even insofar as monetary policy affects investment, it was felt that this influence is general in character, i.e., not selective enough. Monetary policy can bring about some contraction or expansion of effective demand in general. But most countries had emerged from the war with structural distortions which required expansion in certain directions even when contraction in other directions was called for. In shaping demand in particular sectors, monetary policy was not deemed discriminating enough.

The renewed emphasis on monetary policy in recent years is partly the result of a change in circumstances; but it is also the product of a reassessment of the importance of monetary policy and of the adaptation of monetary policy itself to different needs and circumstances. For a variety of reasons, the wartime latent inflation has disappeared in most countries; and experience has shown that monetary policy itself has a part to play in removing or absorbing surplus money. This is even truer when latent inflation takes the form of excessive liquid assets in the community. Moreover, the fears of a recession have proved largely

unreal, and most countries have crossed the hump of economic recovery. Government budgets have swollen in response to the rise in prices, with the result that the cost of the public debt does not loom so large in the total fiscal picture as it did a few years ago. Also, after a point, all economic policies begin to show diminishing returns, so that policies hitherto neglected become relatively more useful. This had happened to monetary policy in relation to fiscal policy or direct controls in several countries, and the proper blend of economic policy has required a little more use of monetary policy. The ideological fervor for egalitarianism has also abated from its postwar peak.

On the theoretical side, it is now recognized that, whatever its limitations in a period of depressed demand, monetary policy can be quite effective in curtailing demand. It does not consist of merely varying interest rates or the cost of credit; it can directly influence the supply or availability of credit. Changes in interest rates may be required as adjuncts to other types of monetary control even if they are not of sufficient importance in themselves. Nor does monetary policy have to resign itself to measures of a generally restrictive character. The availability and terms of credit can be regulated selectively. In this respect, World War II has actually added a new dimension to monetary policy. In the general environment of direct controls, monetary policy itself became imbued with direct and selective overtones; and in the postwar years, this type of technique has been further refined.

The final impetus came with the Korean war, although even before then monetary policy was by no means totally in abeyance. The revival of inflationary pressures after the outbreak of that war, and the prospect of an end to American assistance, made it urgent for most Western European countries to curtail demand at home. As long as economic recovery at home was rapid and large-scale U. S. assistance was forthcoming, it was easy to overlook the direct connection between external imbalance and the internal supply of money, but this connection was underlined by the inflationary boom after the war began.

Techniques of Monetary Policy

It is not easy to delimit precisely the area in which monetary policy operates. Broadly speaking, the task of monetary policy is to regulate the amount of money or means of payment offered for goods and services. Leaving aside the use of surplus money and a more active use of existing money (i.e., an increase in the velocity of circulation of money), the growth of effective demand requires additional means of payment. By controlling the supply of new money, monetary policy can check the

growth of effective demand.[2] The growth of such demand can consist of two elements: growth in prices and growth in production. The supreme test of monetary policy lies in its ability to control the supply of money in such a way that the growth in prices is checked without retarding the growth in production.

In technically advanced societies, bank credit forms a large part of the supply of money. The primary task of monetary policy, therefore, is to control the volume of bank credit. Indeed, in a narrow sense, this is the entire task of monetary policy. But apart from obtaining credit from the banks, a society can increase, in a variety of ways, the means of payment at its disposal. At any given time, business and individuals hold certain assets which can be converted into money, e.g., time deposits, savings bank deposits, short-term or long-term government securities, etc. The distribution by the people of their assets between money and other assets depends, among other things, on the current and expected rate of interest on the other assets, and on the current and expected prices of the securities, goods, and services bought against money. If monetary policy includes the determination of the rate of interest on various more or less liquid assets, it clearly shades off into debt management policy. Apart from this, the supply of money can be increased through the operations of the government budget and the foreign trade transactions of the country. Monetary authorities are not necessarily passive in relation to the government or the agencies responsible for the management of foreign trade. But the area of monetary policy here impinges on fiscal and foreign exchange policy. In the remarks that follow on the techniques of monetary policy, attention will be centered on the control over commercial bank credit. However, the following facets of monetary policy will also be briefly examined: (1) control over idle surplus money; (2) control over a more active use of money; (3) control over a shift from near-money assets to money; (4) control over the creation of money by the government; and (5) control over the creation of money through the foreign sector.

Control over bank credit

The choice of proper techniques for preventing an undue expansion of bank credit depends to a large extent on the general economic conditions in a country, the nature of the banking system, and the traditions that have grown over time. The orthodox weapon is the discount rate of the central bank. Raising the discount rate, however, may not significantly curtail bank credit, for various reasons: The demand for credit

[2] Although monetary policy can influence the process of both an increase and a decrease in effective demand, the emphasis here is on the former because of its greater relevance today.

may be insensitive to its cost, in view of fears about rising prices or shortages; the cost of credit to private borrowers may not increase, if the banks are in a liquid position or are able to secure liquid funds without using the rediscount facilities of the central bank, e.g., by disposing of their holdings of government securities which earn a lower rate than the discount rate. In connection with the elasticity of demand for bank credit, however, it should be remembered that in some countries banks grant medium- and long-term as well as short-term credit, and that in such countries the cost of credit may have a greater restraining significance than in other countries. The expectations about rising prices are in part determined by the confidence of the public in the ability of the authorities to pursue a vigorous monetary policy. And, if the limitation of discount rate policy arises from the possibility of the banks' attaining liquidity by using some of their other assets, it can be offset to some extent by allowing other rates of interest (say, on short-term government securities) to rise.

Even when the demand for credit is not responsive to its cost, there may be some advantage in raising the discount rate. In most countries this would, traditionally, be followed by raising the cost of bank credit irrespective of the need to borrow from the central bank.[3] The higher yield on their loans would enable banks to offer a higher rate on time deposits, and this would have some effect, however small, on the rate at which such near-money assets were converted into money by the public. To the extent that the rationale of a tighter policy toward bank credit lies in the balance of payments position, the favorable effect of a rise in money market rates on capital movements must also be taken into consideration. In any event, the limited effectiveness of higher discount rates does not invalidate their use unless they have some undesired effects. The only such undesired effect that is likely to arise is that, if the interest rate on short-term government securities has to be raised significantly in order to make a higher discount rate effective, it may not be worth the additional cost to the treasury.

Apart from raising directly the cost of credit, monetary policy can curtail the availability of bank credit. The classical technique for this purpose is the open market operations of the central bank. The essence of these operations (in the context of inflation) is to transfer some bank deposits to the central bank by the sale of government securities to banks or the general public. The impact on the liquidity of banks is voluntary or indirect in the sense that it depends on the willingness of the public or the banks to exchange liquid funds for government secu-

[3] If the banks were trying to maximize profits, they would raise the rates on their loans in any case if the demand for bank loans were inelastic. But, in practice, the rates of banks are sluggish and in some countries they are related, by custom, to the discount rate.

rities. But if the interest on government securities has to rise considerably to invoke a sufficient response to such policy, this technique may not be desirable. The central bank may be able to reduce the liquidity of banks without depressing the securities market too much under certain favorable circumstances, e.g., if there is an inflow of foreign capital or a temporary windfall to the community from better terms of trade. In some countries, such as Western Germany, the scope for open market operations is limited by the absence of a sizable amount of government securities in the portfolio of the central bank. Theoretically, this difficulty can be overcome by creating new securities for the purpose; but in practice, when there is a general shortage of capital and the demand for credit is brisk, it is doubtful that this policy would succeed in the absence of some official pressure on the banks to absorb government securities.

The availability of credit can be directly influenced by compulsory reserve requirements, i.e., by transferring bank deposits to the central bank directly and without any cost to the government. This technique requires a fine differentiation in the reserves required for different banks if the banking system lacks uniformity, as is likely in any large country with a decentralized banking structure. Another limitation of this technique arises from the need to take into account the profit position of banks; nonearning assets cannot be imposed ruthlessly on banks, even if they are in a position to raise the cost of their ordinary loans. The chief merit of reserve requirements lies in their comparative simplicity and in the degree of decentralization they imply in deciding which types of credit will be curtailed.

Raising reserve requirements within practicable limits can, however, be somewhat ineffective under certain circumstances. If the banks hold large amounts of government securities, they can monetize them and thus create excess reserves for themselves. In most countries, banks have a traditional regard for distributing their assets in a certain way; they will not allow their holdings of short-term or long-term government securities to fall below a certain proportion of their deposits. In such cases, moderate changes in reserve requirements may be sufficient to prevent any building up of excess reserves through monetization of the public debt. Where such traditions do not exist, or where the actual reserves in government securities are above the traditional level, some additional steps are necessary.

If the banks are trying to circumvent reserve requirements by disposing of their excess holdings of short-term government securities, a higher rate on such securities may be offered as an incentive to hold them. If any reasonable incentive proves insufficient in view of the greater earnings on private loans, some degree of compulsion may be

called for. This may take the form of compulsory reserve requirements expressed in terms of such securities, the funding of such securities into long-term bonds, or the compulsory renewal of old short-term securities as they mature. Whether this result is obtained by legislation or the moral pressure of the monetary authorities would depend, of course, on the country's traditions.

If the banks are trying to create extra reserves by selling off their long-term government securities, the task of the monetary authorities is simpler. Unless the central bank is willing to support the bond market, bond prices must fall if the banks try to sell bonds to nonbank investors, and the banks must suffer a capital loss. This loss would greatly offset the desirability of shifting from government to private loans even if the interest on the latter is significantly higher; the higher interest would be realized on a lower amount, and for many years it would merely be reimbursement for the capital loss. The banks cannot be sure that, during those years, demand for private loans would be sustained, and that they would be able to buy back the bonds in future at the same low price they had realized on them. Even if the banks are prepared to take a capital loss, or if this loss is not great in view of the willingness of nonbank investors to absorb government bonds, the banks would be expanding private loans without any expansion of the money supply, since the purchase of securities from banks by nonbank investors would imply a fall in bank deposits. Thus, if the banks, by trying to sell government bonds, seek to circumvent the attempt to control the availability of bank credit, the central bank need only step out of the market and let bond prices fall. If such a course is deemed undesirable, recourse can be had to still higher reserve requirements or compulsory reserves in government bonds, or restrictions on the negotiability of bonds held by banks, or some direct controls discussed below.

Banks can circumvent the restrictive influence of higher reserve requirements even if they do not have surplus reserves of government securities to dispose of. If the central bank is prepared to offer its rediscount facilities, the banks can increase their ability to lend merely by having greater recourse to the central bank, provided they do not reject such recourse as a matter of tradition. Where conventions about keeping borrowing from the central bank within a certain ratio of banks' total loans are not strong, and as long as required reserves are only a portion of total liabilities, this is clearly possible. In such circumstances, the central bank would be constrained to raise the discount rate to prohibitive heights, or to tighten its rediscount facilities by imposing severe tests regarding the type of paper it would rediscount, or simply by establishing ceilings to the total rediscounts offered to each bank. The central bank can control the availability of bank credit in a direct manner,

by placing a limit on the total credit any bank can give, or on the total credit any customer can obtain. This type of control involves discretion and administrative authority on the part of the central bank; and the degree of intervention implied in the affairs of private banks may not be desirable or politically acceptable everywhere. If the cost structure in the economy were rising, such a policy would call for frequent revisions of quotas. Also, one of the merits of monetary policy in general is its simplicity and freedom from direct interference from authorities. There may be something to be said for direct monetary controls in contrast to direct allocation of materials or direct controls over prices, but both are open to common objections, up to a point.

The techniques of monetary policy discussed so far influence the cost or availability of credit in general. But if, as was suggested earlier, the conditions in an economy are such that expansion in some directions is desirable even as credit in some fields needs to be curtailed, some degree of selectiveness must be introduced in monetary control. To put it differently, if the supreme test of monetary policy lies in its ability to prevent the growth of prices without retarding the growth in production, it may be necessary to control in different ways the supply of money to different sectors of the economy.

In theory, some of the techniques of monetary policy discussed above can be applied in a selective manner. But this is not true of all. Thus, the discount rate can be different for different bills. If the desire is to discourage imports, or imports from certain areas, a penalty discount rate for import bills may be fixed. This can be done indirectly by prescribing different criteria for rediscounts for different bills. How significant such measures are likely to be is another matter; the banks can always rediscount eligible loans in order to enable them to increase other loans, and slight differences in the cost of financing imports may not be very effective. Again, if the availability of credit is controlled by direct means, such as rediscount ceilings or ceilings to total loans by a bank or total loans to a customer, selectiveness can be introduced by making some exceptions. The central bank may even require prior approval for all bank loans or all bank loans in excess of certain amounts. But at this stage, the degree of direct interference and centralization of bureaucratic decisions is increased. Selection presupposes a strait jacket of direct intervention. On the other hand, if simple and indirect techniques, like open market operations or reserve requirements supplemented by necessary changes in government rates of interest, are used, it is not easy to see how these can be used selectively. The only degree of selectiveness possible in such cases is that induced by moral suasion, exhortations, or appeals to the banks' sense of social responsibility. When the banks find that the demand for loans is greater than what they can supply, the

priorities that they would set up may be influenced by the wishes of the central bank. But the banks may have their own private loyalties, and may even insist on their pound of flesh by simply raising the charges on their loans and letting that do the rationing—at least to some extent. If this happens, the government may have to fix legislatively the cost of credit to certain essential links in the economy. Perhaps the best course is to keep deliberate selectiveness to a minimum, and to correct the generally restrictive environment at chosen points by nonmonetary devices—such as subsidies, etc.—or by direct assistance from the central bank. Even the simplest type of monetary technique does not restrict all expenditures in the same proportion. Higher interest rates would curtail some investments more than others, and the banks would ration credit to customers in the light of the soundness of the purpose for which it is sought. If the criteria of the market are not deemed desirable, the instruments of intervention need not be only monetary ones.

There is one type of selective credit control which has a somewhat different rationale from that implied above. If fluctuations in effective demand are centered around certain sensitive areas, and if these areas are particularly susceptible to changes in credit conditions, a decisive influence on aggregate demand may be achieved by controlling credit conditions in a few selected fields, which would minimize the need for introducing changes in credit in general. This is partly the justification for control over housing and durable consumers' goods credit in the United States. In this case a few types of credit may be intensively controlled by prescribing the duration, amount, and cost of such credit, not because such credit is particularly nefarious in itself but because it occupies a key position in the economy. Strictly speaking, this type of selective control is not aimed at bank credit only; it applies to a specific type of credit from all sources—from retailers, banks, mortgage houses, etc. It creates, therefore, a more onerous problem of supervision.

While the foregoing survey of the techniques available for controlling bank credit is by no means exhaustive, an extensive study of all the possible refinements is not necessary in an introductory survey. Therefore, consideration may now be given, briefly, to other aspects of monetary policy.

Latent inflation and velocity of circulation

Control over the supply of new money would lose part of its meaning if the public had accumulated surplus balances of money. Such latent inflation can be eliminated in a variety of ways: by allowing prices to rise, by developing large import surpluses, or by budget surpluses. Alternatively, part of the excess money can be declared worthless, or it

can be rendered inactive by *force majeure* or by offering some incentives until production grows and catches up with the available supply of money. An alternative to canceling part of the money supply is to withdraw money from circulation temporarily by compulsory blocking of loans, or by floating loans to which the public can subscribe voluntarily. The second alternative corresponds to open market operations and has the same limitations.[4] The success of a policy of temporary blocking depends on the ability of the government and the central bank to release old money only as production revives, and to keep the supply of new money to a minimum. Otherwise, the temporary withdrawal of money would merely conceal the real process by which latent inflation is worked off, i.e., by higher prices or import surpluses.

Latent inflation can also take the form of excess liquid assets rather than of surplus money. Insofar as these liquid assets are held by the banking system, they would present difficulties in controlling bank credit, as pointed out above. The liquid assets held by the general public can be dealt with by import surpluses or capital levies, or by allowing prices to rise. Or the public may be induced to hold their liquid assets until there is an increase in real output. The only way that the monetary authorities can control these assets, short of a compulsory scaling down of obligations or a restricting of the negotiability of the assets, is to offer higher rates of interest. Thus, time deposits and savings deposits may be absorbed into long-term government debt. Also, short-term government securities may be funded into long-term debt. The rationale of trying to convert the near-money assets into funded debt is that it reduces the over-all liquidity of these assets. If bond rates are allowed to fluctuate, the bonds cannot be liquidated without a capital loss, and this may be a deterrent to any shift from liquid assets to money. But people have to walk into this trap voluntarily, and it may be that no practicable incentive in the form of higher bond yields would induce them to do so. Ultimately, the question is how far interest rates can influence the public's propensity to spend. Nor is it always possible to brandish the hatchet of capital losses vigorously; the psychology of once-bit-twice-shy would haunt governments which do not all expect to die in the short run. Indeed, many governments have tied their hands in this respect by offering certain amounts of special bonds guaranteed against capital loss to individuals.

Even when the amount of money and of other liquid assets is restored to its "normal" relationship with national income, and even if the supply of new money is controlled as far as practicable, effective demand

[4] In fact, it is more difficult politically for a government to put the proceeds of new loans in cold storage than it is for a central bank to keep idle the funds it raises by open market operations.

can grow if the public starts turning over money more rapidly, or draws on near-money assets. Monetary policy can do little directly to check the increase in the velocity of circulation of money. However, such an increase is likely to take place when confidence in the future value of money is at a low ebb, and is, in fact, often associated with a growth in money supply permitted by weak monetary policy. A vigorous monetary policy may, therefore, keep to a minimum the danger of an activation of the use of money. The problem of countering a shift from near-money assets to money is the same in kind, whether such assets are generally excessive or are temporarily regarded as rather large.

Creation of money through the budget and external trade

New money would be created if the deficit in the government budget were financed by borrowing from the central bank, and to a lesser extent if it were financed by borrowing from other banks. By use of the various devices discussed above, monetary policy can prevent the secondary inflationary impact[5] of such bank-financed deficits. But the task of preventing the primary inflationary impact of such deficits lies outside the field of monetary policy. The central bank may be able to keep its credit to the government within narrow limits, but in the ultimate analysis it cannot exercise sovereign influence over the government budget. Various legal requirements concerning the composition of the central bank's assets may assist in sustaining the fiscal rectitude of the government. But beyond this, the ability of the central bank to limit its credit to the government (or to semigovernment agencies) is a matter of tradition, personalities, and the sense of responsibility on the part of the ultimate repositories of power in the land.

Similar considerations apply to the creation of money through the foreign sector. Any increase in the money supply of a country that has a surplus on current account will depend on how this surplus is financed. If it is financed by private credit extended to foreigners, there need be no creation of money unless the credit comes from the expansion of bank loans rather than from the current savings of the public; but at any rate, there would be a reduction in the liquidity of the banks corresponding to the increase in the money supply. If the export surplus is financed by government grants or credits, or by the accumulation of foreign exchange by the government, the problem becomes essentially a budgetary one. The government may finance the external surplus from normal budgetary sources, i.e., by raising tax revenue or by borrowing the public's genuine savings. This may happen if the government is giving

[5] That is, any expansion of bank credit arising from the improvement in their liquidity.

away the export surplus to foreigners (free grants), or if it is giving credits to foreign governments. It may happen even if the government is accumulating foreign exchange corresponding to the export surplus. But in any event, there would be no net creation of money. However, if the central bank (or the banking system) is obliged to finance the export surplus, there would be a net creation of money. Once again the central bank can counteract the secondary inflationary impact of such an export surplus by normal monetary technique; but the primary inflationary impact can be curtailed only with nonmonetary policies, i.e., by eliminating the export surplus or by finding local currency for it by budgetary devices. Thus, the task here of controlling the amount of money is one of fiscal and foreign exchange policies rather than monetary policy. The central bank can refuse to provide local currency beyond a limit against foreign exchange or against foreign credit balances only by virtue of traditions, etc., in the society. However, in only a few countries are central banks embarrassed in the exercise of their anti-inflationary functions by export surpluses. The more real threat to monetary policy comes from reckless fiscal policies.

MONETARY POLICY IN THE UNITED STATES

U. S. monetary policy since the end of World War II has been conditioned largely by the enormous growth of the federal debt and money supply during the war. In the war years, both the money supply and total liquid assets held by the public increased faster than gross national product (Table 1), and government securities came to occupy a more important position in the total assets of the commercial banks.[6]

While these structural changes tended to inhibit the use of monetary policy in the early postwar years, U. S. monetary policy in the years since the war has, by no means, been one of passive inaction. Some steps were taken in the early part of the period to restore flexibility to short-term interest rates; and both discount rate changes and changes in reserve requirements were used judiciously in 1948. Some experience was also gained during 1949 in the use of monetary policy for counteracting a business recession. In one respect, the war actually added to the weapons of monetary control; the technique of selective credit control developed primarily at that time has been used again in recent years. The removal of price controls soon after the war, the steady growth of production, and the sizable budget surpluses for most of the postwar years have helped to wipe out latent inflation and to correct

[6] At the end of 1945, holdings of U.S. Government securities by the commercial banks amounted to nearly 60 per cent of their deposits, against approximately 30 per cent at the end of 1941.

TABLE 1. MONEY SUPPLY, LIQUID ASSETS, GROSS NATIONAL PRODUCT, AND WHOLESALE PRICES IN THE UNITED STATES

Year	Money Supply[1]	Liquid Assets[2]	Gross National Product[3]	Wholesale Prices[4] (1939 = 100)	Liquidity Ratios[5] (1939 = 100)	
	←(billion dollars)→				Money supply	Liquid assets
1939	36.2	69.0	91.3	100	100	100
1946	110.0	231.5	211.1	156	135	144
1947	113.6	237.2	233.3	192	129	133
1948	111.6	238.8	259.0	208	117	122
1949	111.2	243.0	257.3	198	116	123
1950	117.7	250.2	282.6	206	108	115
1951	124.5	260.5	329.2	229	99	103

[1] End of year data. Source: International Monetary Fund, *International Financial Statistics*.

[2] Includes currency, bank deposits, savings and loan shares, and U. S. Government securities held by individuals and businesses. Banks, insurance companies, savings and loan associations, nonprofit associations, foreigners, and governmental bodies and agencies are not included. End of year data. Source: Board of Governors of Federal Reserve System, *Federal Reserve Bulletin*, July 1952, p. 757.

[3] Sources: U. S. Department of Commerce, *National Income and Product of the United States, 1929–1950* (Washington, 1951), p. 150, and *Survey of Current Business*.

[4] Based on data from *International Financial Statistics*.

[5] For calculating the liquidity ratios, an average of the money supply (or liquid assets) at the end of the year and at the end of the previous year is used.

some of the structural distortions injected by the war into the financial system. The resurgence of inflationary pressures after the outbreak of the Korean war gave additional impetus to the process of revitalizing monetary policy in the United States. Since the beginning of that war, the policy of supporting the government bond market has also been modified.

Interest rate changes

During World War II, the yield on Treasury bills came to be stabilized at ⅜ per cent, and the yield on government bonds was stabilized at a little under 2½ per cent. The discount rate of the Federal Reserve Banks remained nominally unchanged at 1 per cent throughout the war; but a preferential rate of ½ per cent was introduced for discounting government securities due or callable within one year, and it was this rate which was significant in practice. The first step in the direction of flexible interest rates was taken in 1946 when this preferential discount rate was discontinued. This step, however, had only a nominal significance insofar as banks were in a position to create reserves for themselves by selling securities at or above par to the Federal Reserve Banks instead of obtaining discounts against such securities.

In July 1947, the Federal Reserve Banks discontinued their standing ⅜ per cent buying offer on Treasury bills. The rates on new issues of Treasury bills and Treasury certificates were naturally increased, and additional incentive was given to banks to hold on to their short-term government investments. The spread between short-term and long-term interest rates was considerably narrowed (Table 2), and the rise in short-term government rates was reflected in money market rates.

TABLE 2. INTEREST RATES IN THE UNITED STATES[1]

(In per cent)

Date	Government Bond Yield		Treasury Bill Rate	Computed Rate on Interest-Bearing Federal Securities[2]	Call Money Rate	Bank Rates on Business Loans[3]	Discount Rate[4]
	Long-term	Medium-term					
1939.....	2.41	0.59	.02	2.60	1.00	2.1	1.00
1945.....	2.37	1.17	.38	1.94	1.00	2.2	1.00
1946.....	2.19	1.11	.38	2.00	1.16	2.1	1.00
1947.....	2.25	1.26	.60	2.11	1.38	2.1	1.00
1948.....	2.44	1.52	1.04	2.18	1.55	2.5	1.00
							1.25
							1.50
1949.....	2.31	1.35	1.10	2.24	1.62	2.7	1.50
1950.....	2.32	1.45	1.22	2.20	1.62	2.7	1.50
							1.75
1951.....	2.57	1.94	1.55	2.27	2.14	3.1	1.75
1952 Sep..	2.71	2.30	1.79	2.35	2.63	3.49	1.75

[1] Averages of monthly data. Figures are from International Monetary Fund, *International Financial Statistics*, unless otherwise noted.

[2] Data are for end of fiscal year or end of September 1952. Source: U.S. Treasury Department, *Treasury Bulletin*.

[3] Annual averages of rates charged on short-term loans to businesses by banks in selected cities. The 1952 figure is the average for the third quarter. Source: Board of Governors of Federal Reserve System, *Federal Reserve Bulletin*.

[4] For dates of change, see source.

The cheap money policy was adhered to in one respect, however, until after the outbreak of hostilities in Korea. The government bond market was supported at or above par, and the bond rate was not allowed to rise above 2½ per cent until March 1951. In actual practice, bond prices fluctuated above par for most of the time from December 1945 to June 1950, and it would be a mistake to think that the Federal Reserve Banks' open market operations in support of the bond market led to any steady monetization of the public debt. Except for two periods (1947–48 and the first months of the Korean war), the Federal Reserve Banks were, in fact, able to reduce their portfolio of government securities.

During the first two postwar years, bond prices remained generally above par, and the fear of monetization of bonds in an effort to prevent

a fall in their prices proved unreal; in fact, some steps were taken to prevent prices from rising too much.[7] But in the autumn of 1947, bond prices began to fall, principally because of large-scale liquidation by industrial investors which found more attractive investment opportunities in corporate securities and real estate mortgages. By the end of the year, the Federal Reserve Banks had to intervene with firm buying bids, to prevent prices from falling below par. As a result of this policy, the Banks' holdings of government bonds rose from $1.5 billion to $11 billion in one year (Table 3);[8] but since they were able to dispose of large

TABLE 3. U.S. GOVERNMENT SECURITIES HELD BY FEDERAL RESERVE BANKS

(In millions of U.S. dollars)

Date or Period	Bonds	Bills, Certificates, and Notes	Total
December 30, 1939	1,351	1,133	2,484
December 31, 1945	947	23,315	24,262
December 31, 1946	753	22,597	23,350
December 31, 1947	2,853	19,706	22,559
Daily average for December 1947	1,507	20,398	21,905
December 31, 1948	10,977	12,356	23,333
Daily average for December 1948	11,085	11,917	23,002
December 31, 1949	7,218	11,667	18,885
June 30, 1950	5,618	12,713	18,331
March 28, 1951	6,032	16,574	22,606
March 26, 1952	5,636	16,892	22,528
September 24, 1952	5,236	18,479	23,715

Source: Board of Governors of Federal Reserve System, *Federal Reserve Bulletin*.

amounts of short-term securities, the net increase in their government securities portfolio was only approximately $1 billion. This situation, together with the current inflow of gold, added to the liquid resources of banks, and a variety of monetary measures in other fields had to be undertaken to neutralize the effects of the bond support program. But even during this year, some steps were taken in the direction of higher interest rates; the discount rate was raised in two stages from 1 to 1½ per cent, the first increase in more than a decade.

Toward the end of 1948 and in early 1949, bond prices began to recover and the Federal Reserve Banks were able to sell off part of the bonds acquired in the earlier months. But in view of the current business recession, this resistance to the rise in bond prices was soon felt to be inap-

[7] In the two years, the Treasury sold some bonds from government investment accounts and offered a new long-term nonmarketable bond to institutional investors at 2½ per cent.

[8] Part of this increase, however, was in response to the higher reserve requirements introduced in 1948.

propriate, and in July 1949 the bond rates were allowed to decline freely. Sales of bonds by the Banks were resumed, however, in the first half of 1950, net sales during 1949 and the first half of 1950 amounting to more than $5 billion. Once again, the open market operations tended to prevent the bond rate from falling, and the net impact of the policy was the reverse of the monetization of government bonds.

The resurgence of inflationary pressures in the wake of the Korean war brought the problem of debt monetization to the fore again. To discourage bank lending, the discount rate was raised from 1½ to 1¾ per cent on August 25, 1950. Open market operations were conducted so as to permit some rise in government security rates during the early months of the war. Nevertheless, the Federal Reserve Banks' holdings of government securities increased by approximately $4.3 billion during the nine months ended March 1951. Although the expansionary effect of this purchase of securities was to a large extent offset by a concurrent outflow of gold and an increase in reserve requirements, there was a net increase of $1.1 billion in the reserves available for expansion in the banking system. It was under these circumstances that the accord between the Treasury and the Board of Governors of the Federal Reserve System took place in March 1951, heralding a further step in the direction of higher and more flexible interest rates, including those on government bonds.

The new line of policy envisaged in this accord had three main features. First, in order to induce long-term investors to retain their holdings of government bonds, the Treasury should offer to exchange some of them for a new issue with higher yield. A nonmarketable 2¾ per cent, 29-year bond, redeemable at the holder's option before maturity into a 5-year marketable Treasury note was offered in exchange for the two longest issues of the 2½ per cent restricted bonds (maturing in 1972), and nearly two thirds of such bonds were actually converted into the new issue. Second, the open market operations of the Federal Reserve Banks should be on a limited scale, and an orderly fall in bond prices should be permitted. Third, the Federal Reserve Banks should reduce or discontinue the purchase of short-term securities so as to allow short-term rates to move up with the discount rate, thus inducing banks to borrow from the Federal Reserve Banks for their reserve requirements. The Treasury should naturally undertake its refunding operations at suitably higher rates. It was also agreed that the discount rate should remain unchanged at 1¾ per cent during 1951, except for unforeseen circumstances.

The impact of the policy of permitting an orderly rise in interest rates on the monetization of public debt seems to have been favorable. During the year ended March 1952, the Federal Reserve Banks' holdings of

government securities declined a little, but then increased by nearly $1.2 billion during April-September 1952.

Reserve requirements

Variations in bank reserve requirements, with a view to controlling the availability of bank credit, are a part of U. S. monetary policy, and frequent use has been made of this technique in postwar years. The general framework of legislation within which this power is exercised by the Board of Governors of the Federal Reserve System has remained unchanged since the Banking Act of 1935, with the exception of a brief period in 1948–49. Reserve requirements apply only to member banks which are obliged to keep a certain proportion of their deposits with Federal Reserve Banks. The required reserves are different for time deposits and demand deposits; and for the latter, a further distinction is drawn between three groups of banks—central reserve city banks, reserve city banks, and country banks. The Board of Governors can vary the requirements uniformly for any or each group of banks within limits set by the Banking Act of 1935.[9]

At the end of World War II, reserve requirements were at their legal maximum except for banks in the central reserve cities of New York and Chicago. When, in 1948, the policy of supporting the government bond market threatened to increase uncomfortably the reserves of the banking system, some action had to be taken to impound these additional reserves so as to prevent a multiple expansion of bank credit. Therefore, requirements for central reserve city banks were raised to the legal maximum, and additional authority was obtained by the Board of Governors in August 1948, on a temporary basis, to raise reserve requirements above the maximum previously permissible. The banks, however, could easily meet these requirements simply by unloading additional securities on the market rather than by contracting private loans. But since some sale of securities had been made by the banks to the Federal Reserve Banks before the higher reserve requirements were introduced, the measure put a check to the possible expansion of bank credit, given the policy of supporting the bond market. It is noteworthy that the Board of Governors tried in vain, at the time, to extend its powers over reserve requirements in two directions: it suggested repeatedly that nonmember

[9] Present legal minimum and maximum requirements, respectively, on net demand deposits are as follows: central reserve cities, 13 and 26 per cent; reserve cities, 10 and 20 per cent; country, 7 and 14 per cent. On time deposits at all member banks, the minimum and maximum requirements are 3 and 6 per cent, respectively. Nonmember banks are subject to reserve requirements prescribed by individual states.

banks also should be subject to the reserve requirements and that, in addition to deposits kept at Federal Reserve Banks, member banks should be required to hold prescribed amounts of government securities when occasion should demand it.

In May 1949, reserve requirements were reduced, and they fell further in June when the temporary powers granted in 1948 lapsed. Because of the business recession, they were reduced still further in September 1949. When, after the beginning of the Korean war, reserves of the banking system began to increase alarmingly, as a result of the monetization of the public debt, reserve requirements for all banks outside New York City and Chicago were raised in January–February 1951 to the legal maximum. Requirements for banks in New York and Chicago, while slightly below the maximum, were made higher than those prevailing during most of World War II. This step increased by nearly $2 billion the amount of reserves that member banks must carry with Federal Reserve Banks, and it thereby reduced potential bank credit expansion by about $12 billion.

Selective credit controls

Unlike interest rate changes, open market operations, and reserve requirements, which affect the cost and availability of bank credit in general, selective credit controls seek to influence particular types of credit irrespective of their source. This technique was employed to a minor extent even before World War II. The Securities Exchange Act of 1934 authorized the Board of Governors of the Federal Reserve System to prescribe the maximum amount of credit that can be granted by banks or securities brokers and dealers for the purpose of purchasing or carrying securities registered on national stock exchanges. Such margin requirements were primarily intended to control speculative purchases of securities with the aid of borrowed money, and did not apply, therefore, to ordinary loans for commercial purposes even though such loans may be secured by securities. Extensive use has been made of this technique, both during and since World War II.[10] Prior to the war, the margin requirements were 40 per cent, but they were raised by successive stages to 100 per cent by January 1946. These requirements were reduced to 75 per cent in 1947 and 50 per cent in 1949. In January 1951, the margin requirements were raised once again to 75 per cent as part of the general post-Korea anti-inflationary drive, and they remained unchanged (until February 1953 when they were lowered to 50 per cent) despite the tendency to relax and remove various other types of selective controls.

[10] The administration of margin requirements by the Board of Governors is done under Regulation T applying to brokers and Regulation U applying to banks.

Control over consumer credit was introduced for the first time in 1941 by the exercise of the President's emergency powers. The control was administered under Regulation W of the Board of Governors.

Consumer credit forms an important part of total credit in the U. S. economy, and nearly two thirds of it takes the form of installment credit on durable consumers' goods, like automobiles, refrigerators, etc. During the war, installment credit, charge accounts, and single-payment loans were controlled, thus extending the regulatory powers of the Board of Governors far beyond the banking system. Since this control was exercised by virtue of the emergency powers of the President, it was purely temporary and came to an end in November 1947.

After the outbreak of the Korean war, Regulation W was revived under the specific but temporary authority of the Defense Production Act. But this time, only installment credit was controlled, by prescribing minimum down payments and maximum maturities for listed articles. After various revisions, the Board of Governors dropped this regulation in May 1952, and in June 1952 its authority over the field expired.

Under the authority of the Defense Production Act, the Board of Governors has exercised various other selective controls since the outbreak of the Korean war. In October 1950, Regulation X was promulgated and credit for constructing, purchasing, and financing new homes was brought under control for the first time in U. S. history.[11] After various revisions, this regulation was suspended in September 1952.

Not all selective credit controls are restrictive in character. Regulation V is aimed at facilitating the expansion of output by firms engaged in meeting defense contracts. This regulation, which is at present in operation, provides for guaranteeing bank loans and sets the maximum interest chargeable on such loans. Another type of selective control authorized by the Defense Production Act is exemplified by the Voluntary Credit Restraint Program. Under this scheme, the various financial institutions (including banks and insurance companies) and the Board of Governors cooperated in a program under which they agreed to refrain from extending credit not essential for the national defense effort. Although not binding by law, this program had considerable effect in discouraging the extension of unnecessary credit. The program took shape in March 1951, but it was terminated in May 1952, and the authority to revive it has expired.

It is obvious that although selective credit controls have assumed greater importance in recent years they are still regarded as essentially emergency measures. Apart from margin requirements on stock market

[11] The Federal Housing Administration and the Veterans Administration also issued similar regulations to produce a tightening of housing credit under federal programs.

credit, none of the selective controls has a permanent statutory basis. The Defense Production Act of 1950 is scheduled to expire by the end of June 1953. Whether the Board of Governors should be given a permanent framework of authority within which it can employ such controls in the interest of general credit management is a question on which opinion is still divided. There can be no question that the demand for housing and for durable consumers' goods has an important bearing on business fluctuations in the United States. The experience so far would also indicate that this demand is susceptible to credit controls. Nevertheless, the degree of direct interference involved in the administration of such controls is such that they are not yet regarded as a part of the normal machinery of monetary control. It should also be noted that the selective controls employed so far in the United States are not so comprehensive as in some other countries. The whole area of ordinary business loans for increasing inventories has not yet been brought under any direct credit control, quantitative or qualitative, except on the basis of voluntary cooperation among banks.

Structural changes

Developments in the past few years have tended to widen the scope for a successful application of monetary policy. For one thing, latent inflation has virtually disappeared. Both the money supply and liquid assets held by individuals and businesses have increased moderately during postwar years; but prices have risen faster, and there has been a sizable increase in real production. The relation between gross national product and the money supply has already been restored to its prewar position (see Table 1).

Also, there has been a slight reduction in the total federal debt since the end of the war. If the holdings of the Treasury and of the trust accounts and investment accounts of government corporations and agencies are excluded, the total reduction in the debt from June 1946 to June 1952 amounts to approximately $27 billion (Table 4). A large part of this reduction was brought about during 1946–47 by the use of cash balances accumulated earlier.[12] But in the years since then, budget surpluses have accounted for most of the total debt retired. In relation to gross national product, the federal debt now is *a fortiori* smaller than it was in the early postwar years, but higher than in prewar years.[13] In 1951–52 the cost of the public debt amounted to roughly 1.7 per cent of GNP, against nearly 2.5 per cent in 1945–46 and 1.1 per cent in

[12] The postwar peak of the federal debt was reached in February 1946.

[13] The federal debt was approximately 45 per cent of GNP in 1939, 118 per cent in 1946, and 65 per cent in the third quarter of 1952.

TABLE 4. U.S. GOVERNMENT FINANCE AND THE FEDERAL DEBT, AS OF JUNE 30

(In billions of U.S. dollars)

	1939	1946	1947	1948	1949	1950	1951	1952
Budget deficit (−) or surplus	−2.90	−18.20	6.60	8.87	1.00	−2.21	7.59	.07
Use of cash balances	−.62	10.46	12.73	−1.62	1.46	−2.05	−1.84	.39
Federal debt[1]	41.2	244.0	228.9	219.9	217.7	222.6	216.9	217.2
Held by:								
Federal Reserve Banks	2.6	23.8	21.9	21.4	19.3	18.3	23.0	22.9
Commercial banks	15.3	84.4	70.0	64.6	63.0	65.6	58.4	61.1

[1] The 1939 figures refer only to interest-bearing obligations.

Source: International Monetary Fund, *International Financial Statistics*. See source for description of series.

1938–39. It is interesting to note that the cost of the public debt today is smaller in relation to total government revenue than in prewar days: in 1951–52, the cost accounted for less than 10 per cent of government revenue, compared with a little over 13 per cent in 1945–46 and 15 per cent in 1938–39. But clearly, it would be meaningless to draw any unequivocal conclusion from this fact about the relative burden of the debt on the national exchequer.

The real significance of the reduction in the federal debt lies in the fact that nearly all of it applies to the government securities held by the commercial banks, which have the power of creating a manifold expansion in purchasing power by liquidating their holdings of government securities. Since 1946, the commercial banks have reduced their investment in government securities (Table 4), whereas their loans to business and individuals have expanded with the result that the distribution of their assets is now more in conformity with the prewar pattern than it was at the end of the war. In 1937–39, government investments of commercial banks averaged roughly 60 per cent of their loans to business and individuals; by the end of the war, however, they were nearly three times the amount of loans to business and individuals. In June 1952, these two items were approximately the same. It is never easy to say what distribution of assets is regarded as normal by the banks; but if the prewar situation is taken as a norm, it would seem that the incentive on the part of the banks to shift from government to private loans has been reduced considerably over the past few years.

Summary and prospects

Reserve requirements have been an important instrument of monetary policy in the United States for many years. Increasing reliance has been placed, however (especially since the Treasury-Federal Reserve accord), on open market operations—an instrument that had been neglected during the period of rigidly controlled interest rates. Selective credit controls (except on stock exchange securities) are still not a permanent part of the superstructure of monetary control. However, unlike most other countries, the United States has had no problem of reconstruction or persistent payments difficulties. The simple techniques of monetary policy combined with budgetary surpluses seem to have done their job well in facilitating a steady growth of the economy with a high level of employment, though perhaps with a greater price rise than was intended. But despite the absence of direct controls for most of the postwar years, the increase in prices in the United States has been moderate when compared with the rise in other countries.

In summarizing the prospects for a successful application of monetary

policy in the near future, it may be said that there is no danger of an activation of latent inflation. But inflationary pressures may be released currently in response to the expected budget deficit or a resurgence of private demand. The banks still seem to be in a position to permit an inflationary expansion if their government assets can be realized. The Government cannot have recourse to higher reserve requirements without additional legislation since the requirements at present are virtually the maximum permitted by law. Also, the authority to impose selective credit controls has virtually expired for the present. Under the circumstances, the only way to check an expansion of credit—barring new legislative powers—is to permit a rise in government bond yields in order to deter the monetization of the debt and make the discount rate weapon effective. However, whether or not monetary policy will in fact be called upon to deal with any significant inflationary pressures in the near future is a question which falls outside the scope of this paper.

MONETARY POLICY IN THE UNITED KINGDOM

The growth of the public debt during World War II was not so rapid in the United Kingdom as in the United States. But even before the war, the importance of the debt in the national economy was greater in the United Kingdom, and by the end of the war the sterling debt was roughly three times its prewar size and amounted to more than twice the gross national product.[14] Government securities had become a much larger share of the total assets of commercial banks,[15] and a considerable degree of latent inflation had accumulated. Despite this similarity in the general structural changes initiated by the war, the course of monetary policy in the United Kingdom in the postwar years has been different from that in the United States.

Monetary Policy Prior to November 1951

Interest rate changes

At the end of World War II, the interest rates on short-term government securities in the United Kingdom were around 1 per cent, and those on long-term government securities were around 3 per cent—both somewhat higher than in the United States. Toward the end of 1945 and during 1946, these rates were lowered (Table 5). The first step in Mr. Dalton's drive toward an ultra-cheap-money policy was to reduce the Treasury Bill rate to ½ per cent per annum by making the Bank of

[14] Before the war, the sterling debt was roughly 40 per cent more than GNP.
[15] Before the war, the total investment of commercial banks in government securities was significantly smaller than their loans to business and individuals; but in 1945, government investments were nearly three times private loans.

TABLE 5. INTEREST RATES IN THE UNITED KINGDOM[1]

(In per cent)

Date	Government Bond Yield	Treasury Bill Rate	Call Money Rate
1939	3.72	1.32	1.09
1945	2.92	0.88	0.98
1946	2.60	0.51	0.62
1947	2.76	0.51	0.62
1948	3.21	0.51	0.62
1949	3.30	0.52	0.62
1950	3.54	0.51	0.62
1951	3.78	0.58	0.69
1952 Sep	4.19	2.49	2.25

[1] Annual data are averages of monthly figures.
Source: International Monetary Fund, *International Financial Statistics*.

England's "special buyer" always ready to exchange cash for Treasury Bills or Treasury Bills for cash at the fixed rate of ½ per cent per annum. The pegging of the short-term rate at a lower level naturally tended to reduce the long-term rate; but an attempt was made to push the long-term rate down still further by "open market operations". The essence of these operations was to sell Treasury Bills to the banks from the portfolio of various government agencies, and to buy long-term securities from the public (or the market) with the proceeds of the Treasury Bill sales. As long as the special buyer of the Bank of England was ready to buy Treasury Bills at fixed rates, the banks could always have the extra cash necessary to support any increase in their deposits. But once the long-term rate was reduced to 2½ per cent, and the confidence of the general public in the Government's ability to reduce it further or maintain it at that level was weakened, the natural tendency was to turn in more and more bonds to the Government in search of capital gains, and thus swell bank deposits at an alarming rate. In 1946, bank deposits increased by £800 million, or by more than 17 per cent. At a time when inflationary pressures were rampant, such an expansion of the money supply was clearly disturbing, and early in 1947, the Government had to give up the policy of forcing down the bond rate. Since then, the Government has generally allowed the long-term rate of interest to reflect market forces, with the result that it has risen more or less steadily.

The Treasury Bill rate, however, was still kept pegged at ½ per cent until November 1951. As a consequence, it was the Treasury Bill rate of ½ per cent rather than the Bank Rate of 2 per cent which set the tone of money rates in the market. The discount houses did not have to go to the Bank of England when they needed some liquid funds, but could borrow them from commercial banks against Treasury Bills or at call. The banks could lend money at call at cheap rates as long as they had

enough Treasury Bills in their portfolio. Low money rates also tended to keep the rate on bank advances and discount rates on commercial bills comparatively low through competition among the banks and discount houses. The net effect of the pegging of the Treasury Bill rate and the unpegging of the bond rate was to keep the short-term rates very low and widen the gap between short and long rates, in contrast to the development in the United States.

The operative influence of the Treasury Bill rate depends, of course, on the amount of Treasury Bills in the portfolio of commercial banks. It is customary for the banks in England to maintain against their deposits an 8 to 10 per cent cash reserve and a 30 per cent secondary reserve in cash, money at call, and bills. However, in actual practice, the banks held such a large amount of bills (mainly Treasury Bills) prior to November 1951 that it was possible for them to expand their advances significantly without worrying about their liquidity, and this made the Bank Rate largely ineffective in setting the tone of money rates and the rates on advances.

At the end of the war, the relative position of bank advances was such that the banks had every incentive to expand them (Tables 6 and 7).

TABLE 6. LONDON CLEARING BANKS' ASSETS AS PERCENTAGE OF TOTAL DEPOSITS[1]

	"Quick" Assets				"Other" Assets			
Date	Cash	Money at call	Bills	Total	Treasury deposit receipts	Investments	Advances	Total
1938	10.6	6.6	12.3	29.5	—	28.0	42.9	70.9
1946	10.3	5.9	9.0	25.2	29.3	26.4	17.4	73.1
1948	8.2	8.0	12.6	28.8	21.7	25.0	22.3	69.0
1949	8.3	8.5	15.3	32.1	16.4	25.2	24.1	65.7
1950	8.3	9.1	21.6	39.0	7.1	25.0	26.7	58.8
1951	8.3	9.2	19.9	37.4	4.0	26.4	29.6	60.0
1951 Sep 19	8.2	9.5	20.8	38.5	3.5	25.3	30.6	59.4
Nov 21	8.4	9.1	14.6	32.1	1.7	32.8	31.1	65.6
1952 Sep 17	8.2	8.6	21.1	37.9	—	31.4	28.5	59.9

[1] Annual figures are monthly averages.
Source: Central Statistical Office, *Monthly Digest of Statistics*.

At the same time, the banks' liquidity position was such that they could effect an expansion of advances by monetizing some of their other assets, particularly government bonds and Treasury deposit receipts. In fact, there seems to have been no monetization of the long-term debt by the banks in the postwar years because of the unpegging of the bond rate early in 1947. The Treasury deposit receipts were a special wartime device whereby the banks were obliged to lend money to the Government for a short term on a nonmarketable basis—the TDR's being dis-

countable only at the Bank of England at the ruling Bank Rate. The policy followed with respect to the TDR's was largely responsible for improving the liquidity position of the banks, particularly after 1948. In a sense, the TDR system was analogous to statutory reserves (or forced illiquid assets). But this system was deemed undesirable for peacetime, and the TDR's were gradually replaced by Treasury Bills. At the

TABLE 7. SOME ASSETS OF LONDON CLEARING BANKS[1]

(In millions of pounds sterling)

Date	Bills[2]	Treasury Deposit Receipts	Investments[3]	Advances
1938	280	—	637	976
1946	457	1,492	1,345	888
1947	723	1,308	1,474	1,107
1948	744	1,284	1,479	1,319
1949	914	983	1,505	1,440
1950	1,298	430	1,505	1,603
1951	1,228	247	1,624	1,822
1952 Sep 17	1,231	—	1,921	1,748

[1] Annual figures are monthly averages.
[2] Mainly Treasury Bills.
[3] Mainly government bonds.
Source: Central Statistical Office, *Monthly Digest of Statistics*.

same time, the Government used its budget surplus and the counterpart funds of ERP aid to reduce its short-term indebtedness to the banks. But the combined effect was to increase the Treasury Bills in the portfolio of banks so as to bring the ratio of "quick assets" to deposits above the conventional 30 per cent after the middle of 1949. The stage was thus set for a possible expansion in bank advances and a greater discounting of commercial bills by the discount houses—all geared to the fixed Treasury Bill rate of ½ per cent rather than to the Bank Rate. It is in the light of this situation that the monetary policy introduced in November 1951 should be reviewed.

Qualitative controls

The technique of monetary control that has been relied on largely during the postwar period is qualitative control over bank credit. Control of this kind is in the nature of gentlemen's agreements and consists mainly of instructions sent out to banks from time to time by the Bank of England regarding the priorities to be given to different uses in granting bank advances. These instructions are similar to those given to the Capital Issues Committee. Where the bank advances are for capital expenditures rather than for working capital, the applications are gen-

erally referred to the CIC. The cooperation between the commercial banks and the Bank of England is generally good, and this type of control, despite the discretionary element involved, undoubtedly has had a commendable effect. This cooperation also explains why no formal reserve requirements of any kind have been imposed in the United Kingdom.

New Monetary Policy of November 1951

Prior economic situation

The state of its balance of payments and external reserves is the chief determinant of economic policy in the United Kingdom. The gold and dollar reserves began to increase after the devaluation of September 1949, and this increase was stimulated by the Korean war (Table 8).

TABLE 8. U.K. RESERVES OF GOLD AND U.S. AND CANADIAN DOLLARS[1]

(In millions of U.S. dollars)

Date	Reserves	Date	Reserves
1949 Mar	1,912	1951 Mar	3,758
Jun	1,651	Jun	3,867
Sep	1,425	Sep	3,269
Dec	1,688	Dec	2,335
1950 Mar	1,984	1952 Mar	1,700
Jun	2,422	Jun	1,685
Sep	2,756	Sep	1,685
Dec	3,300		

[1] Data are as of end of month.
Source: Central Statistical Office, *Monthly Digest of Statistics*.

But after June 1951, the reserves were subject to a heavy drain (amounting to US$1.5 billion in six months), largely as a result of the U.K. balance of payments position. The monetary policy initiated in November 1951 was designed largely to stop this drain. It was believed that, if the investment outlay at home could be checked, some investment goods could be released for export. Secondly, if tighter money conditions could bring some of the stocks of goods and materials built up during the earlier months on to the market, the flow of production in the export industries could be maintained despite the more severe import restrictions. Also, it was felt that tighter money conditions would restrain the upward movement of wages in response to the rising cost of living, and thus maintain export opportunities. Moreover, higher short-term rates and improved confidence in the monetary stability of the country were expected to have a salutary effect on the movement of capital out of the country.

The devaluation of September 1949 seems to have been followed by a significant increase in bank advances. Between August 1949 and May 1950, these advances increased by 14.6 per cent, against an increase of 7.5 per cent between August 1948 and May 1949 (Table 9). Unlike most

TABLE 9. BANK ADVANCES IN GREAT BRITAIN

(In millions of pounds sterling)

Date	Advances	Date	Advances
1948 Feb.	1,307.0	1951 Feb.	1,806.8
May	1,351.0	May	1,894.9
Aug.	1,380.9	Aug.	1,964.4
Nov.	1,379.5	Nov.	2,016.2
1949 Feb.	1,461.2	1952 Feb.	2,055.8
May	1,487.8	May	2,003.8
Aug.	1,497.1	Aug.	1,847.6
Nov.	1,532.5		
1950 Feb.	1,645.9		
May	1,715.1		
Aug.	1,691.2		
Nov.	1,683.2		

Source: Central Statistical Office, *Monthly Digest of Statistics*.

other countries, the United Kingdom did not experience a sharp expansion in bank advances immediately after the outbreak of the Korean war. The initial reaction to the boom ushered in by the hostilities in Korea was to use up current stocks of goods and materials, and it was not until 1951 that a serious movement toward stockpiling began. In February 1951, bank advances were only 5 per cent greater than in May 1950, and 10 per cent greater than in February 1950; but between February and November 1951, there was a further increase of 11.6 per cent, and the November advances were 20 per cent above those in November 1950.

The monetary policy measures adopted in November 1951 should be studied in the light of the following factors: (1) the deterioration in the U. K. balance of payments position and foreign exchange reserves; (2) the expansion of 20 per cent in bank advances in one year (November 1950–November 1951); (3) the liquidity of the banks, which made further expansion possible; (4) the low level of short-term rates, hinging around the pegged Treasury Bill rate; (5) the strong inducement for banks to increase (more profitable) advances because of the pressure of rising costs, low rates on money market loans and Treasury Bills, and the added strain on their inner reserves because of the falling gilt-edged prices; (6) the upward pressure on wages; and (7) the existence of large stocks built up in earlier months. Perhaps one more factor may be mentioned,

viz., that the huge increase in rearmament expenditure made it all the more imperative to curtail private expenditure and at the same time made it difficult to employ the device of a budget surplus, to any significant extent, for curtailing such expenditure. It is perhaps worth emphasizing that the return to monetary orthodoxy in the United Kingdom was accompanied by a budgetary policy that was less stringent than in most of the earlier postwar years.

Summary of monetary measures

(1) On November 8, 1951, the Bank Rate was raised from 2 to 2½ per cent, the first increase since 1932, barring an increase for two months in August 1939. On March 12, 1952, it was raised further, to 4 per cent. When it was first changed in November 1951, a special arrangement was made whereby 7-day loans from the Bank of England against Treasury Bills would cost 2 per cent and loans against commercial bills or short bonds would cost 2½ per cent. These rates also were raised by 1½ per cent in March 1952.

(2) The Treasury Bill rate was unpegged in November 1951. The Bank of England's "special buyer" would buy or sell Treasury Bills only on its own initiative and to such extent and at such rates as it deemed appropriate. The tender rate on new Treasury Bills was raised steadily—from 0.51 per cent in October 1951, to 0.98 per cent in December 1951, 2.01 per cent in March 1952, and 2.49 per cent in September 1952. Once the Treasury Bill rate was unpegged and the Bank Rate was raised, the only way to keep the cost of short-term government borrowing low would have been to compel the banks to subscribe to Treasury obligations by the revival of a system like the TDR's. But it was decided to suspend TDR's, and the last of these disappeared in February 1952. The rise in the cost of short-term borrowing has benefited the holders of sterling assets abroad.

(3) In November 1951, Treasury Bills worth £1,000 million were exchanged for Treasury Funding Stock with maturities of 1, 2, and 3 years, and redemption yields of 1¼, 1½, and 1¾ per cent, respectively. The commercial banks accounted for nearly half of this conversion, which led to a decline in the ratio of their "quick assets" (cash, money at call, and bills) to gross deposits from 39 per cent in October 1951 to 32 per cent in November 1951, i.e., just above the conventional 30 per cent. The significance of this step is quite clear: it mopped up the excess reserves of the banks in the form of "quick assets", at least for the time being.

(4) At the same time, it was decided that the rates charged by the Public Works Loan Board for loans to local authorities should be raised

and brought more in conformity with market yields. The effect of this, however, has been offset to some extent by increased housing subsidies.

(5) The direct or qualitative controls were further intensified. Early in December 1951, the Capital Issues Committee was instructed to discourage the banks generally in making advances for capital expenditure, and to supervise the terms on which such advances are made. The banks were instructed to limit credit to finance hire-purchase and this was supplemented by a Board of Trade order fixing minimum deposits and maximum repayment periods on a wide variety of goods, particularly metal and engineering products. This attempt to utilize the authority of the Board of Trade to restrict credit along the lines of Regulation W of the Federal Reserve System in the United States marks a new departure in credit policy in the United Kingdom.

Consequences of the new policy

The new monetary measures have affected initially the structure of short-term rates. Once the peg on Treasury Bills was removed and the tender rate for these Bills was raised, all short-term rates would tend to be geared to the Bank Rate or, more accurately, to the rate at which the money market could borrow from the Bank of England against Treasury Bills (3½ per cent) or other bills and government bonds (4 per cent). The higher yield on bank assets has also enabled the banks to raise their deposit rate from ½ to 2 per cent. The effect on the rate for bank advances and overdrafts is less pronounced than on other short-term rates. Even prior to the changes in monetary policy, the banks were trying to raise the rates on advances to meet the pressure of rising costs and, in a sense, the higher yield on their other assets would tend to mitigate the urgency of raising the rate on advances. But the authorities exhorted the banks to raise their charges to customers, and the increases that have occurred are partly the result of such appeals. The truth of the matter seems to be that, as long as short-term rates on bills and discounts were kept too low by government policy, the spread between such rates and the rates on advances was more than in proportion to the difference in risk and liquidity. The stiffening of the money and bill rate structure has tended to narrow this spread somewhat, rather than to cause a proportional rise in all interest rates. It is difficult to give a precise idea of the movement in the rates for advances, since these rates vary widely from customer to customer. Prior to the changes in monetary policy, some privileged industrial borrowers were paying as little as 3 to 3½ per cent; by and large, they are now paying about 1 per cent more. The majority of industrial borrowers paying around 4 to 4½ per cent have had to face a smaller increase in charges. More signifi-

cant, perhaps, is the increase in the rates charged to nationalized industries and other public or semipublic enterprises. But, on the whole, the new monetary policy cannot be said to have raised the rates on advances to levels which would significantly affect the willingness of business to borrow.

As far as bank advances are concerned, the decisive change has been the funding of Treasury Bills, which has impaired the ability of the banks to lend by reducing their excess reserves. During the nine months ended August 1952, total commercial bank loans to business and individuals actually declined by nearly 12 per cent. However, the psychological effect of higher interest rates on business prospects, the direct effect of tighter qualitative controls, and import controls were responsible in part for the slowing down of bank credit expansion. Again, it is purely a matter of convention for the banks to maintain 30 per cent of their deposits in the form of quick assets, and it remains to be seen how strong this convention will prove in the face of any sizable reinforcement of the demand for credit. The funding of Treasury Bills for a period of one to three years implies also that the problem will re-emerge when these securities mature—or even as they approach maturity. Therefore, the attack on the liquidity of the banking system relies for its success largely on the ability of the Government to restrict its own need for short-term accommodation from the banks.

In this respect, the record of the Government for some time was not encouraging. During the period April–August 1952 (i.e., the first five months of the fiscal year 1953), there was a sizable budget deficit, and the Government had to increase its borrowing from the banking system by more than £500 million. (In the corresponding period of 1951, the Government's use of bank credit was virtually unchanged.) The net result was an unfortunate increase in the liquidity ratio of the banks, to nearly 37.4 per cent by the middle of September 1952.[16] It was clear that, unless the budgetary position showed a marked reversal in the coming months, the attack on bank liquidity would have to be renewed all over again. It is perhaps worth recalling that in suspending the TDR system a warning was given that it would be resumed if the Treasury felt the need for doing so.

To examine whether or not the new monetary policy has helped significantly in stopping the drain on the U.K. gold reserves is outside the scope of this survey. There has been some improvement in the underlying situation in the country—personal savings were higher in the first half of 1952 than in the first half of 1951, and the rise in wage rates was less pronounced. Bank credit in fact has declined during the year, and

[16] Subsequently, the ratio declined a little, as a result of the refinancing operations that fell due in October.

wholesale prices at present are no higher than they were a year ago. During the third quarter of 1952, however, industrial production was somewhat lower and unemployment higher than in the corresponding period of 1951. This seems to be reflected also in the value and volume of exports, which are running lower than a year ago. The decline in imports has been even greater and the trade balance has improved. But it is difficult to disentangle the role of monetary policy in these developments, and in any event the United Kingdom has not yet reached a stage where the task of monetary policy can be considered to have been accomplished.

Conclusions

Despite the withdrawal of the support to the government bond market as early as 1947 and the continuous use of qualitative controls, vigorous use of monetary policy in the United Kingdom has been made only during the last year. But the changes in the United Kingdom represent a more complete return to monetary orthodoxy than in most other countries. Although the new monetary policy relies heavily on restricting the availability of bank credit by controlling bank liquidity, this is not done with the help of statutory reserve requirements, and it is not made a justification for keeping interest rates low. The fear of any addition to the cost of the government debt has been cast aside firmly, at least for the time being, in favor of a flexible monetary policy. The interest rate on short-term government paper has been raised drastically to make the higher discount rate effective and to induce banks to hold their short-term government investments. Only to the extent that qualitative credit controls are employed and indirect pressure is exercised on banks in connection with the refinancing operations of the Government is a departure made from the simple discipline of the Bank Rate and open market operations. But even in this field, nothing approaching a supervision of individual loans is attempted.

The prospects for monetary policy in the near future still remain uncertain. The liquidity of the banks has been strengthened in recent months, and the budgetary position is not above concern. Despite the expansion of private loans in the past few years, government loans still comprise a relatively larger part of the portfolio of commercial banks than before the war.[17] Whether the banks' notions about the normal distribution of their assets have changed in the meanwhile can be tested only by time. The ratio of money supply to national income, which was 64 per cent higher in 1946 than in 1939, exceeded the prewar level

[17] In 1939, loans to the Government by commercial banks amounted to 80 per cent of their private loans; but at the end of August 1952, they were still 125 per cent of private loans.

by approximately 34 per cent in 1951. Presumably, this ratio has declined further in 1952, and there may have been a secular increase in the need for money over the last ten or twelve years. But the disappearance of latent inflation from the British scene cannot be regarded as established on the basis of available evidence. The importance of the national debt has diminished in recent years, with the growth in production and prices. But the total sterling debt is still nearly twice gross national product. The incidence on the government budget of the rise in government bond rates in the past few years will be felt only in the coming years as some of these bonds mature. How far the Government will be able to subordinate the consideration of minimizing the cost of the public debt to the pursuit of a vigorous monetary policy remains to be seen.

MONETARY POLICY IN FRANCE

France has pursued an active monetary policy throughout the postwar years; but this policy had to operate in an economic setting which was somewhat unique among the countries studied here. The latent inflation accumulated during the war was worked off at a very early stage, mainly by a rise in prices. Nevertheless, in most of the postwar period prices and wages have continued to rise sharply (Table 10) in an

TABLE 10. SELECTED ECONOMIC DATA FOR FRANCE

Date	Money Supply[1]	Franc Debt[1]	National Income	Wholesale Prices	Wages	Ratio of Money Supply to National Income[1]
	← (billion francs) →			← (1948 = 100) →		(1938 = 100)
1938[2]	192	414	360	5.83	6.92	100
1945	1,013	1,823	....	22	26	....
1946	1,349	1,975	2,596	38	44	85
1947	1,676	2,118	3,303	58	59	86
1948	2,165	2,451	5,430	100	100	66
1949	2,704	2,723	6,539	112	101	70
1950	3,120	2,846	7,117	121	120	77
1951	3,678	3,032	9,082	155	....	70
1952 Jul.	3,917	....	....	162	....	....

[1] Money supply and franc debt refer to the end of the year, but for calculating the ratio of money supply to national income, the average of the money supply at the end of the year and at the end of the previous year has been used.

[2] The 1938 data are not fully comparable with those for the later years.

Source: International Monetary Fund, *International Financial Statistics*. See source for description of series.

environment of persistent and large budget deficits, political instability, and social tensions. Higher and flexible interest rates can have only a limited usefulness under these circumstances, with the result that, despite the early departure from the wartime cheap money policy, the corner-

stone of French monetary policy in recent years has been an elaborate system of quantitative and qualitative controls over credit. Few other countries can claim such a complete panoply of direct credit controls. But as long as active inflationary pressures continue to be generated, particularly by the Government, massive wage and price rises become inevitable and the lid on credit has to be raised correspondingly. The story of French monetary policy in the past few years has been one of periodic attempts to patch up the loopholes in existing credit controls as avoidance became common, without being unrealistic about the need to raise the lid on credit with the progress of inflation.

Monetary Policy, 1945–48

Latent inflation

At the time of liberation (September 1944), the total money supply in France was more than five times that in 1938; and the increase in total liquid assets (money supply plus deposits in savings banks and holdings of Treasury bills) held by the public was of the same order. Official prices, however, were only 2½ to 3 times their prewar level; but black markets were rampant, and prices on those markets were much higher. On the other hand, production was less than before the war.

Unlike Belgium or the Netherlands, France did not embark on a monetary purge to get rid of the surplus money. The exchange of notes in the spring of 1945 did not aim at blocking any part of it, although it did reduce the money supply to the extent that notes held by Germans or collaborators were not exchanged. Similarly, the Liberation Loan also had no permanent contractionist influence insofar as its proceeds were spent by the Government. However, the money supply was a little below the liberation level until August 1945. In the meanwhile, prices rose sharply and production began to recover: wholesale prices rose by 75 per cent in the fifteen months after liberation. Although precise calculation is not possible, it is reasonable to conclude that the ratio of the money supply to national income had fallen to its prewar level by the end of 1945 or early in 1946. This must have been true *a fortiori* of the domestic national debt held outside the Bank of France, since the increase in total debt during the war was smaller than the rise of the money supply (Table 10), and a higher proportion of it was held by the Bank of France at the end of the war. However, like most countries, France still had to contend at the end of 1945 with one of the legacies of the war: government securities held by the commercial banks accounted for a much larger share of the banks' total assets than in prewar days, and the elasticity of the credit system was consequently greater.

Even in the early postwar years, France's major fight was against current and open inflation rather than against the latent inflation inherited from the war. The prime mover in the inflationary process was the government budget deficit which amounted to 12 to 14 per cent of national income during 1946–48. There was also an increase of 600 per cent in bank credit to the private sector between the end of 1945 and the end of 1948 (Table 11); and during the same period the money supply

TABLE 11. DOMESTIC LOANS AND INVESTMENTS OF BANKS IN FRANCE

(In billions of francs)

Date	Bank of France[1]			Commercial Banks[2]		
	Government	Business and individuals	Total	Government	Business and individuals	Total
1938	38	13	51	12	41	53
1945	468	30	498	239	101	340
1946	591	84	675	235	250	485
1947	766	123	889	179	398	577
1948	799	251	1,051	243	665	908
1949	893	369	1,262	279	867	1,146
1950	913	433	1,346	308	903	1,211
1951	956	781	1,738	327	1,079	1,406
1952 Jul	939	856	1,795	381	1,245	1,626

[1] Data refer to last Thursday of year or month.
[2] Data refer to end of year or month.
Source: International Monetary Fund, *International Financial Statistics*. See source for description of series.

more than doubled, and prices rose to 4½ times and wages to nearly 4 times the previous level. Despite some attempt to control wages and prices, massive increases were granted; e.g., wages increased by 50 per cent in August 1944, 40 per cent in March 1945, 25 per cent in July 1946, 30 per cent in April–July 1947, 35 per cent in December 1947, and 15 per cent in September 1948. To some extent, the inflationary process was accompanied by a flight from money.[18] It was in this environment that various monetary measures were taken to stave off the price-wage spiral.

Higher interest rates

France departed from the wartime cheap money policy early in 1947. In January 1945, the Bank of France had actually reduced its discount

[18] See Table 10. The ratio of money supply to national income may, however, exaggerate the extent of the flight from money that developed after the end of 1945. In the postwar period, black markets have declined in significance and black market prices have risen less than official prices. Insofar as official national income estimates disregard black markets, the growth of national income is exaggerated.

rate from 1.75 to 1.625 per cent; but after January 1947, the discount rate was moved up in various stages to 3½ per cent in early September 1948 (Table 12). The increase in September was mainly for psychological

TABLE 12. INTEREST RATES IN FRANCE

(In per cent)

Date	Government Bond Yield[1]	Call Money Rate[1]	Treasury Bill Tap Rate[2]	Discount Rate[2]
1938	4.04	2.21	2.60	2.50
				3.00
				2.50
1945	2.99	1.38	1.50	1.625
1947	3.91	1.57	1.625	1.75–2.25
			2.00	2.50–3.00
1948	4.62	2.09	2.00	3.50–4.00
				3.00
1949	4.78	2.26	2.00	3.00
1950	5.18	2.43	2.00	2.50
1951	5.51	2.70	3.00	3.00
				4.00
1952 Jun	5.08	3.66	3.00	4.00

[1] The annual figures are averages of monthly data.
[2] For dates of changes, see source.
Source: International Monetary Fund, *International Financial Statistics*.

reasons at a time of government crisis, and toward the end of the month the rate was lowered to 3 per cent. In the meanwhile, the rate on advances against securities also was raised from 2.75 to 4.5 per cent. These increases naturally added to the cost of borrowing from banks—the cost of advances and overdrafts being as high as 5½ to 7½ per cent.

The rates of interest on government securities were allowed to move up, and new bonds were floated at higher rates. Thus, the yield on 3 per cent irredeemables increased from 2.99 per cent in 1945 to 4.62 per cent in 1948. In 1945, the large Liberation Loan was floated at 3 per cent. But the rate of interest on newly issued bonds averaged 4.36 per cent in 1946, 4.98 per cent in 1947, and 5.86 per cent in 1948. The Treasury bill tap rate was also raised, from 1.5 to 1.625 per cent in January 1947 and to 2 per cent later in the year. The semipublic institutions which provide medium- or short-term finance to the private sector also raised the rates on their loans significantly. However, even these higher money rates of interest were much smaller than the annual rate of price rise, i.e., *real* rates of interest were still negative.

Direct credit controls

Direct credit controls have evolved gradually in France and are administered by a variety of institutions. The whole system of credit controls was systematized, however, in the autumn of 1948.

In December 1945, the National Credit Council (Conseil National du Crédit) received power to issue orders or recommendations to banks about the type of credit they should encourage or discourage. This was reinforced in 1946 by making it obligatory for banks to report all extensions of credit in excess of 5 million francs to a new department of the Bank of France. The instructions of the National Credit Council were revised from time to time. For example, the banks were directed early in 1947 to refuse credit for nonessential purposes and to firms which could obtain funds by other means.

In October 1947, a further provision was made requiring the prior approval of the Bank of France for all advances and overdraft commitments in excess of 30 million francs. This limit was later raised to 50 million francs. The limit did not include the prime commercial bills discounted by banks on the assumption that such credit represents a movement of goods and is noninflationary. But since nearly two thirds of bank credit to commerce and industry consists of discounting prime bills, a large area of credit was uncontrolled. It was also difficult to ensure that the qualitative provisions were implemented fully by the banks.

Therefore, a more comprehensive system of control was set up in September 1948. The new scheme had two additional features: control over bank reserves, and ceilings to a bank's rediscount facilities.

In France, as in most other countries, the danger of a shift from government credit to private credit by banks was real. In October 1945, the Bank of France had entered into "gentlemen's agreements" with important banks whereby the latter undertook not to unload government securities except when their deposits were withdrawn. This voluntary measure had worked well, on the whole; but under the system set up in September 1948, the banks were legally required to maintain their holdings of government paper at the September 1948 level, except in the event of a withdrawal of their deposits. Also, at least 20 per cent of any addition to their deposits had to be kept in cash or short-term government paper. Clearly, the success of such a reserve requirement is contingent on the Government's ability to do without central bank finance.

The ceilings fixed for the total rediscounts that banks can secure at the Bank of France naturally are revised from time to time. The larger banks are able to get special accommodation from the Bank of France for 5 to 30 days against Treasury bills and acceptances of the Crédit National. Such accommodation falls outside the scope of the general "ceilings", although, naturally, it too is restricted to certain limits by agreement between the parties. Another kind of accommodation not included in these ceilings is the borrowing under the so-called "pension" system whereby banks can sell securities to the Bank of France with an arrangement to buy them back within 15 days.

The qualitative instructions of the National Credit Council and the prior approval of the Bank of France for advances to any customer in excess of 50 million francs, of course, remained in effect. But the quantitative reserve requirements and rediscount ceilings introduced a degree of automaticity and decentralization of decisions into the system.

Monetary Policy, 1949–50

The pace of inflation slowed down considerably during 1949 and most of 1950. The government budget was still unbalanced; but the deficit was smaller in relation to national income than in the preceding three or four years. Prices and wages rose by only 20 per cent during the two years, and the balance of payments deficit was reduced. The money supply and bank credit to the private sector increased by about 45 per cent, and the ratio of the money supply to national income recovered somewhat from the abnormally low level of 1948, indicating that the flight from money was perhaps less pronounced and the confidence in the franc was greater. Production continued to increase, and unemployment remained low. A variety of factors was responsible for this outcome; but the credit controls introduced in the autumn of 1948 must have strengthened the efforts made in fiscal and other fields.

During this period of comparative stability, there was some tendency to liberalize the restraints on credit in an effort to be realistic about the price rises that had taken place. Thus, in April 1950, the limit beyond which bank advances cannot be given to a customer without the approval of the Bank of France was raised from 50 million to 100 million francs. The ceilings on rediscounts also were raised. In June 1950 (just before Korea), the discount rate was lowered from 3 to 2½ per cent, and the rate on advances against securities from 4½ to 3¾ per cent. As a consequence, the rates on bank credit also were reduced. There was no attempt to reduce the rates on government securities, however. The Treasury bill tap rate remained unchanged at 2 per cent, and the yield on 3 per cent irredeemables increased from an average of 4.62 per cent in 1948 to 5.18 per cent in 1950.

Monetary Policy, 1951–52

When hostilities broke out in Korea, the trend in France was toward a relaxation of credit controls. France, like the United Kingdom, felt the inflationary impact of the Korean war somewhat later than most countries of Western Europe. In the early stages, the speculative outburst of demand was absorbed by using up stocks; but toward the end of 1950, a rapid expansion of credit began. After the spring of 1951,

the balance of payments showed an alarming deficit, and in the autumn of 1951 various steps were taken to tighten credit. Thus, in contrast to developments in most countries, the post-Korea revival of monetary policy in France and the United Kingdom came more than a year after the onset of the Korean war. In France, however, this revival took the form mainly of an intensification of existing credit controls, although the interest rate weapon was not ignored.

The deterioration that set in during 1951 is best illustrated by the balance of payments position. The over-all balance of payments deficit of the franc area had declined from roughly US$1,900 million per year during 1946–48 to $700 million in 1949 and $200 million in 1950. But it rose to $1,100 million in 1951. Despite the greater contractionist impact of external factors, the money supply increased more in 1951 than in 1950. The expansion of bank credit to business and individuals was also more rapid: some 40 per cent in 1951, against less than 10 per cent in 1950. The Government's budgetary position began to deteriorate after the middle of the year. Wholesale prices had already risen by 34 per cent in the year following the Korean war. Several administratively controlled prices were sharply raised; e.g., the price of wheat was raised by no less than 39 per cent in August 1951. It was impossible to administer credit ceilings in the face of such massive price rises, and considerable laxity in the implementation of credit controls had in fact developed. The monetary reform in the fall of 1951 was aimed both at the establishment of more realistic credit ceilings and at a stricter regulation of new credit.

Thus, the rediscount ceilings for each bank were revised, in most cases upward; but the banks were warned that the new ceilings would be enforced more rigidly. In the past, the ceilings had been too easily raised. The total of rediscount ceilings was raised from 290 billion francs to 500 billion. The loophole of the banks' borrowing from the central bank under the "pension" scheme was sealed by decreeing that such borrowing could not exceed 10 per cent of a bank's rediscount ceiling and could be made only at a penalty rate fixed from time to time by the Bank of France.[19]

Another abuse that had developed was the use of commercial bills in place of advances by firms, in order to circumvent the provision requiring permission from the Bank of France for any advances to a customer in excess of 100 million francs. In October 1951, this limit was raised to 500 million francs, but commercial bills as well as advances had to be included in this limit. However, this figure of 500 million francs left many firms with a comfortable margin for extra borrowing—a factor

[19] At present, the penalty rate is 1½ per cent higher than the bank rate of 4 per cent.

that was responsible for the continuance of credit expansion for some months after the monetary reform.

The compulsory reserve requirement provisions were also revised. Previously, the banks had been required to attain the required ratios in their assets only once a month, with the result that a practice of window-dressing developed. But since October 1951, these ratios have had to be maintained on a daily basis.

The discount rate was raised in October from 2½ to 3 per cent, and in November to 4 per cent. The Treasury bill tap rate was raised for the first time in four years, from 2 to 3 per cent. The government bond rate was allowed to find its own level, and it continued its upward movement. Perhaps the willingness of the French Government to offer more attractive terms on its loans is best evidenced by M. Pinay's gold clause loan of May 1952. This loan gives a smaller return of 3½ per cent, but it carries important fiscal privileges and an insurance of the capital against a fall in its gold value, as measured by the quotations of the napoleon on the Paris market.[20] Thus, despite the pace of the French inflation and the reliance on direct credit controls, the interest rate weapon is actively used in France.

Bank credit continued to expand during the last quarter of 1951 and the first quarter of 1952, and the budgetary and foreign trade situation reached a crisis in February 1952. The average monthly deficit with the European Payments Union rose from the equivalent of US$36 million in the third quarter of 1951 to US$95 million in the fourth quarter and to US$129 million in February 1952. Only after March 1952 were some signs of an abatement of inflationary pressures discernible in France. Wholesale prices fell slightly and bank credit increased only a little. The foreign trade deficit declined from a monthly average of US$172 million during the first quarter of 1952 to US$65 million during July–August, and the proportion of imports covered by exports rose during the same period from 53 to 74 per cent. However, this improvement over a few months can be regarded only as tentative, and it is, in any event, the product of many policies and circumstances unrelated to the monetary reform of 1951.

MONETARY POLICY IN FEDERAL REPUBLIC OF GERMANY

The foundation of an active monetary policy in the Federal Republic of Germany was laid in June 1948, when a drastic currency reform was undertaken. Prior to the reform, confidence in the currency was at a low

[20] The price of the napoleon on the Paris market is generally significantly higher than that of the same weight of bar gold, and the Government is in a position to influence the price of napoleons, within limits, by increasing their supply on the market.

ebb, black markets were widely prevalent, and much of the exchange in the economy was conducted on a barter basis. But once most of the old money in circulation was wiped out and the amount of liquid assets held by the general public and the banking system was drastically reduced, it was possible to remove rationing and price controls to a great extent. The Bank Deutscher Länder, which was set up in March 1948,[21] responded with alacrity to the opportunity offered by the far-reaching currency reform. The main objectives of economic policy in the Federal Republic in recent years have been the restoration of productive capacity and the resettlement of the large number of refugees from Eastern Germany without permitting a serious rise in prices which would postpone the attainment of external equilibrium. Since the middle of 1948, monetary policy has played a very active role in steering the economy through the twin dangers of inflation and underemployment, and, on the whole, the achievements of the monetary authorities so far have been creditable.

Currency reform of 1948

In June 1948, the unit of currency was changed from the old Reichsmark to a new Deutsche Mark. The Reichsmark holdings, including bank balances, of all individuals and entities were converted into Deutsche Marks at the ratio of RM 100 to DM 6½. This provision did not apply to banks, governmental agencies, and a few other institutions. Of the DM 6½ exchanged for every RM 100, a part (i.e., DM 1½) was temporarily blocked; and a part of the blocked balances could be invested only in certain securities. The process of converting old money into new money was gradual; but it was virtually completed by the middle of 1949. The monetary purge was more drastic than in the Netherlands or in Belgium insofar as it permanently wiped out more than nine tenths of the money in circulation.

The currency reform provided for the conversion of most of the monetary claims in the ratio of RM 10 to DM 1. The entire internal debt of the old Reich was declared worthless. Thus, along with the money supply, the liquid assets in the economy were curtailed.

An equally far-reaching reorganization of the banks was undertaken. Their entire holdings of notes and coins of the Reichsmark period,

[21] The new central banking system in Germany is modeled on the Federal Reserve System in the United States. Each of the eleven lands constituting the Federal Republic has its own legally independent Land Central Bank which is subordinate to the main central bank, the Bank Deutscher Länder, in the sphere of credit control. However, the capital of the Bank Deutscher Länder is held by the Land Central Banks, whose presidents constitute eleven of the twelve members of the governing body of the central bank. The central banking system is formally independent of the Government; but in August 1951, the Federal Government was given a larger voice in the formulation of central banking policy.

their claims against the Reich, and their balances with other banks were eliminated altogether. The banks had suffered, as a result of wartime destruction, the loss of their assets outside Western Germany and the confiscation of their holdings of foreign exchange. It was necessary to compensate them in some manner, if their books were to balance and if they were to be able to resume their normal activities. This was done, first, by giving them an initial quota of balances with the central bank, and, second, by giving them certain amounts of equalization claims.[22] These claims are tantamount to funded government debt, but their negotiability is restricted; they can be bought and sold or be used as security only between banks, and the transfer can take place only at par. The banks could sell these claims to the Land Central Banks or the Bank Deutscher Länder or use them as security for borrowing from these institutions; but the central banking system could exercise its discretion in permitting such use of the claims. The net effect of the reorganization of the assets of the banks was to restore their usefulness on the one hand, and bring them under the discipline of the central bank on the other. Unlike banks in most other countries, the banks in the Federal Republic were left with no legacy of short-term government securities which they could liquidate in order to increase their ability to lend to the private sector.[23]

All the governmental agencies were given an initial quota of Deutsche Marks to enable them to carry on their normal functions. But the currency laws contained express provisions forbidding budget deficits in principle and allowing borrowing only in anticipation of future receipts—that is to say, in the form of short-term credits. At the same time, under the central bank laws, definite limits were set to the total credits that public authorities can obtain from the Land Central Banks and the Bank Deutscher Länder. These limits have been revised from time to time; but it is clear that the central banking system was launched on its career with sufficient safeguards against the frustration of its monetary policies by the budgetary imprudence of the Government.

Monetary policy before the Korean war

The immediate effects of the currency reform were gratifying. Confidence in the currency was revived, and production increased substantially during the second half of 1948. At the same time, the policy

[22] Equalization claims were also given to insurance companies and to building and loan associations.

[23] New government securities have come into existence since the currency reform, but their magnitude is small. In August 1952, the new internal debt amounted to about DM 1.3 billion, against a national income of about DM 90 billion.

of decontrol led to a sharp rise in prices; but since the official prices before the reform were largely nominal, owing to the prevalence of black markets, it is difficult to attach any precise significance to the price increases that took place in the first months after the removal of controls.

The process of economic recovery, at the time, depended heavily on bank credit. In the absence of an active capital market, the banks were responsible for granting medium- and long-term, as well as short-term, credit. The Bank Deutscher Länder had to develop gradually the techniques of control over bank credit. The discount rate was initially set at 5 per cent, and at the time of the reform the banks were already subject to reserve requirements. This was supplemented by issuing directives concerning the type of bills and acceptances the central bank would discount and the conditions under which the bank would buy or lend against equalization claims. Thus, the mechanism of the central bank discounts was used for modifying the quality of bank credit; and by varying the severity of the tests implied in the directives, the bank could also affect the volume of bank credit.

For some time after the currency reform, the banks were in a fairly liquid position, and they were able to expand credit considerably without much recourse to the central bank. It was feared that, if this expansion were not checked, an inflationary price-wage spiral might develop; therefore, steps were taken to restrict bank credit. In November 1948, the conditions attached to central bank rediscounts were made more severe; and in December 1948, the minimum reserve requirements for sight deposits at "Bank places"[24] were raised from 10 to 15 per cent. The indirect powers of suasion by the central banking system were also used by requesting the banks not to increase their lendings beyond the level of October 31, 1948, without consultation with the appropriate Land Central Banks.

The policy of tighter credit was reversed, however, in 1949. After December 1948, prices began to decline a little, and the rate of credit expansion slowed down. The influx of refugees from Eastern Germany continued to swell the ranks of the unemployed, and the need to create further employment became more urgent. During 1949 and the first half of 1950, Germany followed a deliberate policy of encouraging credit expansion.

In March 1949, the banks were released from the requirement of keeping their credits down to the level of October 31, 1948. The minimum reserve requirements were lowered in June 1949; and by July 1949, the discount rate had been reduced to 4 per cent. In September 1949, the minimum reserve requirements were reduced once again.

[24] "Bank places" are localities at which there is a Land Central Bank or a branch of one.

In August 1949, the central bank laid down a liberal procedure under which the banks could make use of their equalization claims in order to expand credit for long-term purposes. The banks could get total assistance of DM 300 million by selling their equalization claims to the central banking system if they could satisfy the authorities that the funds were needed for financing essential export orders or investment projects and that they would repurchase the claims in future under suitable circumstances. The central bank thus bought at par some of the bonds held by commercial banks; but there was nothing automatic about this process, and the purpose, extent, and duration of such "monetization of the funded public debt" was determined by the central banking system.

Despite the various steps taken to liberalize credit during 1949, the monetary authorities did follow, on the whole, a cautious policy in view of the disequilibrium in the balance of payments. Economic recovery continued during 1949; but the continuous influx of fresh labor and the rationalization of industries led to unemployment of uncomfortable proportions. The number of unemployed persons had increased from 450,000 shortly after the currency reform to 760,000 at the end of June 1949. In the winter of 1949–50, the situation deteriorated still further, and in February 1950 unemployment reached 2 million persons,[25] the highest level since the middle of 1948.

In the spring of 1950, the central banking system took various steps to facilitate the Government's employment promotion program. This program consisted of various schemes to expand export industries and the construction of houses, and the central banking system promised total assistance of DM 2 billion by way of cash advances and rediscount facilities. The Government's credit limit at the central bank was raised from DM 1 billion to DM 1.5 billion. Institutional investors (i.e., savings banks, building associations, insurance companies, etc.) were promised that the central banking system would buy equalization claims in specified amounts in order to enable such investors to participate in the different employment promotion schemes. The Reconstruction Loan Corporation also received assurances of help by the central bank. The intention of the central bank was to give assistance for only a short period, i.e., in anticipation of the future receipts of funds by the agencies themselves. Only part of the credit promised by the central banking system was utilized before the outbreak of hostilities in Korea; and the unutilized portion of this credit was used to feed the post-Korea boom. The repayments of central bank assistance were not so rapid as originally planned.

[25] These unemployment estimates apparently include a significant proportion of persons that are not employable; this is due to the large number of refugees from Eastern Germany.

The expansionist policy of the Government and the central bank had a salutary effect on production and employment. The number of unemployed was reduced from 2 million in February 1950 to approximately 1¼ million by the end of September 1950; in the meanwhile, employment increased by 1 million and industrial production by more than 25 per cent. This improvement, however, was partly in response to purely seasonal factors.

Monetary policy after outbreak of Korean war

With the outbreak of hostilities in Korea, the process of economic expansion in Germany developed into an inflationary boom. In the early phase of industrial expansion, there was already a tendency for imports to increase faster than exports; and when, after the war began, demand tended to outstrip the growth in production, a serious balance of payments disequilibrium developed. It is not necessary, for our purpose, to go into the detailed causes or extent of this imbalance; but clearly, the development of a serious imbalance in external accounts was facilitated by the ability and willingness of the banking system to expand credit.

In October and November 1950, the central bank took several measures to restrict credit. The discount rate was raised from 4 to 6 per cent, and the minimum reserve requirements were raised by an average of 50 per cent. Of course, the reserve requirements would become meaningless if the banks were to continue to get generous rediscounting facilities from the central banking system. It was decided, therefore, that bank acceptances would be rediscounted at Land Central Banks only if the bank concerned undertook not to increase its acceptance credit beyond the level reached on October 12, or promised to restore it to that level by the end of 1950. The Land Central Banks were also requested to reduce their credits to banks in respect of discount of bills, or of advances upon bills as security, by 10 per cent before January 31, 1951. However, certain types of credit, such as those for the promotion of exports, were excluded from these provisions. To make the financing of imports still more difficult, it was decided that import permits could be granted or prolonged only if 50 per cent of the value of the permit were first deposited in cash at the central bank.

These monetary measures were the mainstay of Germany's efforts to resolve its balance of payments crisis at the turn of 1950. But the success of the policy fell short of expectations. By the end of February 1951, Germany had practically exhausted its special credit with the European Payments Union, and had to resort to severe import restrictions. The tighter money policy did slow down the rate of expansion of bank credit; but, in view of the urgency of the crisis and the loopholes that

manifested themselves in the system of monetary discipline, it became incumbent on the authorities to resort to additional measures. The higher discount rate was not much of a deterrent to borrowers who expected prices to rise sharply. It was not possible to raise reserve requirements in a manner which would impinge equally on the liquidity of different banks: insofar as the positions of banks differ, some banks are left with excess reserves even when others are squeezed to the utmost, as long as reserve requirements are more or less uniform. Apart from this, the criteria established by the central bank for the rediscounting of bank bills and acceptances still left some scope for shifting to other types of credit for obtaining additional accommodation from the central banking system. The unutilized portion of the credit promised by the central bank in connection with the employment promotion program of the earlier period facilitated the process of credit expansion. Also, the post-Korea boom in Germany was fed in part by the use of near-money assets, such as savings and time deposits—a process which cannot be significantly countered by monetary policy.

This experience with monetary policy led the central bank to adopt new measures of a somewhat permanent significance. It was felt that, if the operations of the banking system were to be subject to some traditional checks, some guiding principles had to be developed. In most countries, banks have certain more or less fixed ideas about the distribution of their assets, the size of their business in relation to their net worth, etc. In Germany, the chaotic conditions after the war and the drastic reorganization introduced by the currency reform had left a vacuum in this respect. Early in 1951, the central bank laid down certain principles in regard to the amount of short-term credits a bank can give, the proportion of its assets it should hold in a liquid form, and the volume of acceptance credit it can give. Such principles could not be compulsorily established. But the idea was to develop certain uniform practices over a time by utilizing the powers of suasion and supervision and, if necessary, by making use of the central bank's power of denying rediscount facilities.

With the imposition of import restrictions, the balance of payments position began to improve. But the tighter money policy was not given up, in view of the need to remove import restrictions as soon as possible. In fact, simultaneously with the introduction of import restrictions, the banks were asked to reduce their short-term credits to trade and industry by DM 1 billion in a few months. Instead of relying merely on indirect pressures, the central bank thus required the banks to follow a direct quantitative course. This scheme for reducing credits permitted different treatment for different banks, insofar as they were not subject to a uniform proportionate reduction. It also implied a selective approach

to credit restriction: long-term credits necessary for enlarging the capital base of the economy were not included in the scheme, and even short-term credits for the promotion of exports, for example, were exempt from the provision.

The new monetary policy was successful, on the whole, in achieving its immediate purpose. By the end of May 1951, the type of bank credit subject to reduction quotas was in fact curtailed by DM 840 million, against the DM 1 billion which had been intended.[26] This reduction no doubt reflected, in part, the fall in import credits resulting from the import restrictions, the decline in raw material prices, and the reaction to the earlier hoarding wave; it was also more than offset by the increase in bank credit which was not subject to reduction quotas. But this was not in conflict with the aim of promoting the long-term recovery of German industry and exports. The program of credit reduction helped to restore confidence in the financial stability of the economy and encouraged fresh savings; and a large part of the new loans made by banks during the first five months of 1951 represented a channeling of current savings deposited with the banks in the absence of a capital market.

After June 1951, the central banking system followed a somewhat less restrictive credit policy. The credit reduction scheme was renewed, but it was administered more liberally and was finally dropped in October 1951. Additional assistance to the Reconstruction Loan Corporation was promised, and in September 1951 the requirement that cash deposits in respect of import permits must be lodged with the central bank was abolished. In April 1952, the minimum reserve requirements were lowered for the first time since October 1950, and they were lowered again in September 1952. The discount rate was also lowered in May 1952, from 6 to 5 per cent, and again in August 1952, to 4½ per cent.

Along with these liberalizing measures, however, the central banking system also refined the instruments of monetary control at its disposal. These refinements had no immediate restrictive or other purpose, but they were intended to add to the ability of the central bank to perform its functions adequately.

Thus, when the minimum reserve requirements were lowered in April 1952, a new principle of differentiating between banks was introduced. Until then, the reserve requirements had been different for different types of deposits and for banks in different localities (i.e., at Bank and non-Bank places)—more or less on the model of the U. S. practice. But a further distinction now prevails between banks on the basis of the size of their deposits which are classified into six ranges. A more favorable treatment is meted out, in general, to the smaller banks.

Another recent innovation is the determination of specific ceilings

[26] The base period is the end of January 1951.

TABLE 13. SELECTED ECONOMIC DATA FOR FEDERAL REPUBLIC OF GERMANY

	1948	1949	1950	1951	1952
			Billion Deutsche Marks		
Money supply[1]	11.48	13.81	15.79	18.59	19.20 (Jul)
National income	29.4[2]	63.2	71.7	90.2	47.2 (Jan–Jun)
			Million U.S. dollars		
Balance of payments surplus or deficit (−)	−974	−1,035	−664	53	....
			Per cent of employable wage and salary earners		
Unemployment (all types)	4.2	8.3	10.2	9.0	7.6 (Jun)
			1950 = 100		
Employment (manufacturing)	88[3]	94	100	108	108 (Mar)
Industrial production	55	79	100	119	124 (Aug)
Wholesale prices (home-produced goods)	101	102	100	121	124 (Aug)
Cost of living	....	106	100	109	113 (Aug)
Wages (weekly earnings)	71	90	100	....	122 (May)
Volume of exports	....	....	100	143	148 (Aug)
Volume of imports	....	....	100	102	110 (Aug)

[1] Data refer to end of year or month.
[2] July through December.
[3] Less than 12 months.
Source: International Monetary Fund, *International Financial Statistics*.

to the amount of rediscount facilities that credit institutions can obtain from the central banking system. These ceilings, which came into effect on May 1, 1952, are not to be exceeded even temporarily. However, certain types of credit are excluded from the ceilings in order to encourage the growth of selected activities. A credit institution whose rediscount quota is exhausted can still get advances from the central bank against securities. The cost of such advances is 1 per cent higher than the discount rate, and the conditions under which they can be obtained are more severe than those for ordinary rediscounts. By lowering or raising these ceilings, the central bank can obviously wield additional influence over bank credit.

Economic achievements

It is clear that the central bank has shown considerable ingenuity in forging new weapons of monetary control and in applying them. Since the currency reform of 1948, Germany has shown remarkable recovery in production and has attained virtual external viability. It would be

easy to attribute the economic achievements of Germany to monetary policy alone; however, generous U.S. assistance, among other things, has played a vital part in this process. But a few facts may be noted here, to give a general idea of the progress that has been made.

Since 1948, employment in industries has increased by more than 20 per cent and industrial production has more than doubled (Table 13). Real wages have increased with the productivity of labor. Prices of domestically produced goods have increased by about 25 per cent and money wages by over 70 per cent. The 1951 balance of payments showed a small surplus, although there was a sizable deficit with the dollar area. The acute crisis in Germany's relations with EPU at the turn of 1950 was overcome by the spring of 1951, and by the end of the year Germany was able to repay all the credits received from EPU in earlier months. During 1952, Germany has restored the liberalization of trade with OEEC countries to over 80 per cent, and yet has achieved a commanding cumulative surplus with EPU (a cumulative accounting surplus of approximately 450 million units at the end of September 1952, against a deficit of like amount at the end of February 1951). In August 1952, there were still approximately 1.1 million persons unemployed, but employment in Germany must be judged against the background of the rise in employment and real wages, and the influx of 7–8 million refugees from Eastern Germany.

MONETARY POLICY IN BELGIUM

Belgium was one of the first countries to return to economic liberalism and external viability after the end of World War II. This was achieved to a great extent by the vigorous use of monetary policy; in keeping with the prevalent liberal philosophy of the country, the monetary technique employed, for the most part, was the orthodox one of changing the discount rate. The foundation for the active use of such a simple technique was laid soon after the liberation, and the Government has pursued a budgetary and debt management policy that is consistent with the continued effectiveness of discount rate manipulations.

Monetary purge of 1944

In October 1944, Belgium undertook a drastic currency reform to drain off the excess purchasing power accumulated during the occupation. Prior to the purge, the money supply was four times its prewar level; and although the national income at that time is unknown, it is quite clear that the extent of latent inflation was enormous.

In essence, the currency reform blocked part of the currency and bank deposits, and reduced the money supply at one stroke, from Bfr 164 billion to Bfr 57 billion. Whether, in relation to national income, the

amount that remained in circulation was larger than in prewar years is difficult to say; but the circulation was smaller relative to prices and wages. Nearly 40 per cent of the blocked balances were to be released gradually as production increased; and the remaining blocked balances were later converted into a special nontransferable currency reform loan. The proceeds of the loan were not utilized by the Government, and the loan was to be paid off by special capital levies and (later on) from ordinary revenue.

However, the money supply increased in 1945 from about Bfr 69 billion to Bfr 125 billion, as a result of the large budget deficit[27] in the year and the generous releases from the temporarily blocked balances. Some latent inflation seems to have returned during 1945; but the budgetary situation improved considerably in 1946, and by 1947 the ratio of the money supply to national income returned to the prewar level (Table 14), despite the practically complete unblocking of the tem-

TABLE 14. MONEY SUPPLY, NATIONAL INCOME, AND PRICES IN BELGIUM

Date	Money Supply[1]	National Income	Wholesale Prices[2]	Ratio of Money Supply to National Income
	←(billion francs)→		(1948 = 100)	(1938 = 100)
	(1)	(2)	(3)	(4)
1938	41.2	65.2	26	100
1945	125.6	....	....	....
1946	138.1	190.6	85	107
1947	142.3	214.6	91	101
1948	150.1	243.9	100	93
1949	155.9	249.1	95	95
1950	155.2	265.0	100	91
1951	168.8	296.0	121	85
1952 Aug.	171.0	....	112	....

[1] Money supply refers to the end of the year, but for calculating the ratio of money supply to national income, the average of the money supply at the end of the year and at the end of the previous year has been used.

[2] The figure for 1938 is not fully comparable with those for later years; see source. The 1946 figure is for November–December.

Sources: Columns 1, 2, and 3, International Monetary Fund, *International Financial Statistics*.

porarily withheld money supply. Most of the direct controls were also withdrawn during 1946 and 1947, and the stage was set for the free play of market forces.

Control over bank credit, 1944–49

The monetary purge of 1944 was also reinforced by an attack on the liquidity of the banking system in the early postwar years. As in most

[27] The budget deficit of approximately Bfr 60 billion was the result of heavy expenditure on behalf of allied forces and for the reconstruction of transport facilities.

countries, the banks in Belgium had acquired large amounts of government paper during the war, and the danger of an excessive expansion of bank credit by monetizing these obligations was very real.

At the time of the currency reform, two measures were adopted to stave off this danger. The first required the banks to inform the National Bank and the Banking Commission of every request for credit in excess of a million francs. This did not amount to prior approval, but it obviously carried a degree of moral suasion. Secondly, the maturities of all government securities falling due during the year after the currency reform were automatically extended for one year, and a further extension was made later. But in February 1946, these provisions were set aside in favor of compulsory reserve requirements. The banks were required to keep 50 to 65 per cent of their demand deposits in the form of cash or government securities, the percentage depending on the size of the bank. This provision has remained in force ever since then, with minor modifications.

Once the excess money supply was eliminated and the elasticity of credit supply was curtailed by reserve requirements, the way was cleared for the use of the discount rate technique. In January 1945, the discount rate was lowered from 2 to 1½ per cent in order to promote the revival of production and the replenishment of stocks. With the progress of economic recovery, the rate was gradually raised to 2½ per cent in November 1946, 3 per cent in December 1946, and 3½ per cent in August 1947. In October 1949, when Belgium was suffering from an economic recession, the rate was lowered to 3¼ per cent. The Belgian banks had to have recourse to the central bank during all these years, and the discount rate was effective in practice.

Increasing the cost of credit through changes in the discount rate does not, however, exclude all elements of selectiveness from credit controls. The banks were enjoined from time to time to use certain rules and preferences in granting credit and, insofar as the banks had to seek rediscounts with the central bank, these directives were not mere gestures. Also, in the early postwar years, the central bank, with the cooperation of the Institut de Réescompte et de Garantie, set up a system of certified bank acceptances for imports and exports. This system of the central bank giving prior visa or certification to certain bank paper has been developed considerably in recent years, and has become the basis for charging different discount rates for different types of bank paper. The central bank rediscounts all bank paper with the necessary signatures and of a specified currency period. But if a bank acceptance is visaed in advance by the central bank, it gets preferential treatment in several ways: the necessary signatures can be obtained easily in the market, and the acceptance can be rediscounted at a preferential rate.

Bills not visaed by the central bank can be rediscounted, but generally at a higher rate, depending on the nature of the paper. Even among the bank paper visaed by the central bank, some bills (generally those pertaining to exports) get a preferential rate (of ½ to ¾ per cent) from time to time, depending on circumstances. The spread between the lowest and the highest discount rate can thus be of the order of 2 to 3 per cent. Apart from this, the central bank may apply different tests of the maximum currency period of the bills it would visa, thus encouraging (or discouraging), in advance, credit for certain purposes. Thus, by changing the criteria for giving its prior visa to bank paper, the central bank can influence not only the cost of credit for different purposes, but also the duration of credit a bank is willing to give, and the ease with which a customer can get credit from banks.

Government finances and rates of interest, 1946–49

The tap rate for Treasury bills (4 months) has remained unchanged at 1.3125 per cent since January 1946. But in view of the compulsory reserve requirements and the need for rediscounts on the part of the banks, this rate does not set the tone of short-term rates in the market. The Government has allowed the bond rate to find its own level, and has exercised great caution in its own expenditure, to minimize its resort to the market for new borrowing. Thus, during 1947–49, investments of public authorities in Belgium amounted to only 3 to 4 per cent of national income, against 7 to 10 per cent in France and 5 to 7 per cent in the Netherlands and Norway. Despite this restraint, Belgium ran a budget deficit averaging approximately Bfr 15 billion per year during 1946–49, and although a large part of it was financed by long-term borrowing, some resort to the central bank was entailed.[28] A further restraint on government spending was instituted, therefore, in September 1948 when, by an agreement with the central bank, a limit of Bfr 10 billion was put to the total debit balance of the Treasury with the central bank.

Effectiveness of monetary policy, 1946–49

How effective the different monetary measures discussed above were in restoring the Belgian economy and in restraining inflation is very difficult to say. The increase in the money supply and prices during 1946–49 was very moderate, and both industrial and agricultural production increased beyond prewar levels. In 1949, equilibrium in the over-all balance of payments was restored, and gold and foreign exchange reserves actually increased by roughly 10 per cent during 1946–49. Belgium

[28] No part of this deficit, however, was covered by the use of counterpart funds.

had to devalue less than most European countries. Monetary policy was responsible for this outcome only in part.

Unemployment in Belgium increased significantly during these years, particularly after 1948 (Table 15). There are special difficulties in Bel-

TABLE 15. UNEMPLOYMENT, EMPLOYMENT, AND WAGES IN BELGIUM

Date	Unemployment, All Types[1] (*per cent of insured workers*)	Employment, Manufacturing[1] (*1948 = 100*)	Real Wages[2] (*1948 = 100*)
1945	9.3	....	....
1946	3.6	....	....
1947	3.5	....	105
1948	6.4	100	100
1949	11.7	95	108
1950	10.9	98	115
1951	9.8	102	116
1951	9.5 (Jul)	104 (1st quarter)	114 (Jun)
1952	10.4 (Jul)	99 (1st quarter)	120 (Jun)

[1] From International Monetary Fund, *International Financial Statistics*.
[2] Hourly earnings deflated by retail prices. Based on data from *International Financial Statistics*.

gium, e.g., the immobility of the unemployed in Flanders for language reasons. It is arguable also that the high unemployment reflects the greater rationalization of Belgian industry, and that it should be set off against the significant increase since 1948 in real wages. But whatever the explanation or justification, the fact remains that unemployment in Belgium has been high in recent years, when compared with most other countries.

Monetary policy, 1950–52

At the time of the outbreak of the Korean war, Belgium was just recovering from the recession of 1949. During the summer of 1950, the industrial unrest connected with political developments had disorganized government finances. The Korean war superimposed the usual outburst of speculative demand, with the result that prices rose very sharply and the balance of payments deteriorated. The resurgence of inflationary pressures, however, was also the product of temporary factors, like the disorganization of government finances in earlier months and the large demand for raw materials in the first phases of industrial recovery. Nevertheless, the discount rate was raised from 3¼ to 3¾ per cent in September 1950, and the central bank issued fresh instructions to the commercial banks to curb credit, particularly consumer installment credit. This type of credit has gained in importance in recent years;

but unlike the United States, Belgium has not made any general attempt to modify the terms of such credit. At the same time, the central bank shortened the maximum currency period of some of the bills it would accept for rediscounting, so as to discourage the financing of specific transactions. Early in 1951, the private credit institutions set up, at the initiative of the bank, a program of voluntary qualitative selection among credit applicants.

By the middle of 1951, Belgium's balance of payments position improved and internal inflationary pressures subsided. Certain consumers' goods industries began to feel the pinch of a slackening of the internal demand. Consequently, the discount rate was lowered to 3½ per cent in July, and to 3¼ per cent in September, i.e., to the pre-Korea level. The most important discount rate increase since the beginning of the Korean war has been that on certified export bills which was raised from 2½ per cent to 3 per cent in September 1950, and to 3¾ per cent in December 1950. It was reduced to 3¼ per cent in 1951, along with other rates. Various steps were taken in the second half of 1951 to reduce the export surplus with EPU countries and the import surplus with the dollar area by modifying the procedure of guaranteeing import and export bills. Thus, the maximum currency period of the bills relating to imports from the EPU area was extended and that relating to imports from the dollar area was shortened, in deciding which bills the bank would certify.

During 1951, Belgium had an over-all surplus on current account of Bfr 11.3 billion. To limit the inflationary significance of such an export surplus, exporters to the EPU area were required in September 1951 to surrender part of their export proceeds to a blocked account. The conditions governing such surrender have been changed frequently since then, but the general provision still remains.

The inflationary impact of an export surplus depends, of course, on the manner in which it is financed. A part of Belgium's export surplus to EPU was financed by Belgian Government credit: In March 1951, the central bank had put an upper limit of approximately Bfr 10 billion to its own part of the credit to EPU. This made it necessary for the Government to find the finance for a part of the credit to EPU by ordinary budgetary devices of taxation or borrowing.

Thus far in 1952, prices have tended to fall, and there has been no significant change in monetary policy. Unemployment has been somewhat higher and industrial production somewhat lower than in the corresponding period of 1951. Bank credit has been slightly greater than in 1951. During the first half of 1952, the Government and official entities were able to borrow Bfr 10 billion in the capital market, against Bfr 2 billion in the corresponding period of 1951.

The foregoing account of the developments in monetary policy in Belgium since the outbreak of the Korean war shows how uneventful these changes have been in comparison with those in other countries. Unlike most other countries, Belgium had developed a well-integrated system of monetary control long before the Korean war and had to do little but make minor adjustments from time to time in response to various temporary disturbances to monetary equilibrium.

MONETARY POLICY IN THE NETHERLANDS

Latent inflation, 1945–49

On the eve of the liberation (May 1945), the Netherlands suffered from acute latent inflation, with the money supply four times that in 1938 and wholesale prices around 80 per cent higher than in prewar years (Table 16). A reliable estimate of the national income at the time

TABLE 16. MONEY SUPPLY, NATIONAL INCOME, AND WHOLESALE PRICES IN THE NETHERLANDS

Date	Money Supply[1]		National Income[2]	Wholesale Prices	Ratio of Money Supply to National Income[1]	
	Million guilders	1945 = 100	(*billion guilders*)	(*1945 = 100*)	Per cent	1938 = 100
	(1)	(2)	(3)	(4)	(5)	(6)
1938.....	2,541	62	5.39	56	46	100
1945.....	4,100	100	....	100	....	....
1946.....	6,193	151	9.93	139	54	117
1947.....	6,954	170	12.07	150	54	117
1948.....	7,332	179	14.23	156	51	111
1949.....	7,552	184	15.96	162	46	100
1950.....	7,081	173	17.72	183	41	89
1951.....	7,292	178	19.35	223	36	78
1952 Aug...	7,871	192	....	214	....	....

[1] Money supply figures refer to the end of the year, but for calculating the ratio of money supply to national income, the twelve months' average of the money supply at the beginning and end of each month has been used for all years except 1938; for 1938, the average of the money supply at the beginning and end of 1938 has been used.

[2] At market prices.

Sources: Columns 1, 3, and 5, Netherlands Bank, *Report for the Year 1951* (Amsterdam, 1952), and International Monetary Fund, *International Financial Statistics*. Column 2, computed from Column 1. Column 4, based on data from *International Financial Statistics*. Column 6, computed from Column 5.

of the liberation cannot be given; but it is believed that the money supply at that time was more than twice the national income, compared with only 40 to 50 per cent of national income during 1934–38.

The total amount of liquid assets had also grown substantially during the war. The internal debt of the Government grew to more than five

times the prewar level, and government securities came to occupy a predominant position in the assets of the commercial banks.[29]

The principal attack on the redundant money supply was made in September 1945, when all currency and deposit money were withdrawn from circulation and blocked. The idea was to reduce the money supply to practically nothing, and to inject new money into the system by a gradual deblocking of old accounts in such a way that means of payments would be made available only to enable people to make their current contributions to production. It was believed that, insofar as the Netherlands retained wartime direct controls over wages and prices, the new money created needed to be no more than the amount required to finance and exchange production at current prices, and that latent inflation should cease to be a problem.

Part of the blocked money was to be released gradually. Part was to be withdrawn permanently from the stream of circulation by floating medium-term and long-term loans, and by capital levies. Unlike the procedure in Belgium, no specific fraction of the blocked money was compulsorily converted into government debt. The subscription to government loans from blocked money was voluntary. In 1946, a large 3 per cent loan with maturity of 50 years and savings certificates with 5-year maturity and 2½ per cent yield were floated. It is not possible to say how much blocked money was absorbed this way, because these loans were subscribed to by means of free money and by the conversion of old Treasury bills as well as by the use of blocked money. Apart from this, the 1946 long-term loan and certificates could be used for payment of certain taxes or levies so that the money locked up in them could return to circulation.

In addition to the money supply, the Netherlands attempted to block other liquid assets, to some extent, as a part of the Currency Rehabilitation Program. Thus, some holders of old Treasury bills had to reinvest in new Treasury bills on maturity or put the proceeds in a blocked account. The long-term 3 per cent government stock floated in 1946 was not transferable until March 1949, and the savings certificates floated at the time had similar conditions attached to them. In addition to demand deposits, time deposits and savings deposits at various institutions were also blocked.

In actual practice, the deblocking of old money and assets together with the creation of new money by the expansion of bank credit led to the re-emergence of some latent inflation in the early postwar years. The government budget was unbalanced, and part of the deficit was

[29] Before the war, loans to the Government by the banks were nearly 60 per cent of their private loans; but at the end of 1945, government loans were seven times the amount of private loans.

financed by means of capital levies and taxes paid out of blocked accounts. The public was also allowed to use, to some extent, blocked accounts for investment purposes, with the result that part of the investment was financed by monetizing old savings rather than from new savings. The money supply in 1946 was greater in relation to national income than in 1938, indicating that some excess of the money supply had re-emerged, despite the monetary purge and the subsequent growth in production and prices. The Netherlands retained, therefore, most of the direct controls (rationing, price controls, etc.) for some years. During 1947–49, the money supply increased moderately, but not so much as production. In 1948, and more so in 1949, various decontrol measures were adopted, and prices rose with the restoration of market forces. In the meanwhile, most of the blocked money and assets had also been released (Table 17). But only in 1949 was the ratio of the money supply

TABLE 17. BLOCKED ACCOUNTS OF THE NETHERLANDS[1]

(In millions of guilders)

Year	Blocked Money (1)	Other (2)	Total (3)
1945	3,058	3,705	6,763
1946	1,613	5,049	6,662
1947	1,432	4,389	5,821
1948	931	2,649	3,580
1949	459	672	1,131
1950	54	347	401
1951	20	90	110

[1] Data refer to end of year.

Sources: Column 1, International Monetary Fund, *International Financial Statistics*. Column 2, computed from Columns 1 and 3. Column 3, Netherlands Bank, *Report for the Year 1951* (Amsterdam, 1952).

to national income restored to the 1938 level and the excess money supply worked off; in achieving this, the blocking procedure had the assistance of rising prices and import surpluses.

Control over bank credit, 1945–49

The success of the monetary purge was, of course, contingent on the control over new money creation, including that by banks. During the period 1945–49, bank credit to business and individuals did expand (Table 18), although not so rapidly as production.

The major control over bank credit was exercised by virtue of one of the provisions of the monetary purge whereby bank credit was not to be given to anyone still holding blocked accounts. Thus, in theory, no one could evade the control over deblocking by obtaining accommodation

TABLE 18. DOMESTIC LOANS AND INVESTMENTS OF COMMERCIAL BANKS IN THE NETHERLANDS[1]

(In millions of guilders)

Date	Government	Official Entities	Business and Individuals	Total
1938[2]	293	24	485	802
1945	3,850	50	489	4,389
1946	3,357	91	686	4,134
1949	3,596	151	1,005	4,752
1950	2,933	121	1,207	4,261
1951	3,021	210	1,475	4,706
1952 Aug.	3,760	159	1,361	5,280

[1] Data refer to end of year or month.
[2] The 1938 figures refer only to the five leading banks.
Source: International Monetary Fund, *International Financial Statistics*.

from banks. The banks were left free to grant small loans for specified purposes, but the prior approval of the Netherlands Bank was necessary for all loans in excess of 50,000 guilders. Apart from this, there was also an informal control over nonessential credit by virtue of the "gentlemen's agreements" between the central bank and the credit institutions.

The discount rate was not changed during the period; it remained at the 1941 level of 2½ per cent. Neither were the banks subject to any reserve requirements.[30] The mainstay of credit control in these years was a direct quantitative control.

As a result of the expansion in bank credit, government loans became relatively less important in the portfolios of banks. But at the end of 1949, they were still much larger than in prewar years—nearly three and one-half times private loans, compared with only 60 per cent of private loans before the war. Thus, even if excess money was worked off by the end of 1949, the elasticity of the credit system was still quite great.

Interest rates, 1945–49

The interest rate weapon was not used vigorously in the early postwar years, and the general tendency was toward low rates. As stated above, the discount rate was not changed during the period. Early in 1946, the interest to be allowed to depositors with the State Post Office Savings Bank was reduced from 2.64 to 2.16 per cent. The State prescribed maximum rates of interest that municipalities and local govern-

[30] However, insofar as the provisions concerning the blocking or nonnegotiability of assets as a part of the currency rehabilitation decrees applied to the assets of the banks, this was tantamount to compulsory reserve requirements. But it is difficult to assess the significance of this factor.

ments could pay. The offer rate for Treasury bills was reduced in June 1947, from 1 per cent to ¾ per cent for 3-month bills, and by a corresponding margin for other bills. The Agent of the Ministry of Finance generally sold unlimited amounts of Treasury bills at these rates, irrespective of the needs of the Government. It is not necessary to go into all the refunding operations in connection with medium-term and long-term loans; suffice it to say that with the general progress of reconstruction there was some tendency toward offering slightly better yields. But on the whole, the rise in the long-term bond yield was moderate (Table 19).

TABLE 19. INTEREST RATES IN THE NETHERLANDS[1]

(In per cent)

Date	Government Bond Yield		Industrial Bond Yield	Treasury Bill Rate	Call Money Rate
	2½ per cent irredeemables	3 per cent, 21-year loan, 1937			
	(1)	(2)	(3)	(4)	(5)
1938	2.87	....	....	0.21	0.26
1946	2.99	2.96	3.20	1.20	0.95
1947	3.06	3.05	3.15	1.35	0.99
1948	3.10	3.13	3.18	1.30	0.90
1949	3.14	3.20	3.11	1.27	1.03
1950	3.14	3.21	3.11	1.40	1.07
1951	3.44	3.85	3.98	1.36	1.03
1952 Aug	3.34	3.68	3.98	.85	.58

[1] Annual figures are averages of monthly data.
Sources: Columns 1, 3, 4, and 5, International Monetary Fund, *International Financial Statistics*. Column 2, Netherlands Central Bureau of Statistics, *Statistical Yearbook of the Netherlands, 1947–50* (The Hague, 1951) and *Monthly Bulletin of Statistics*.

The relatively low rates of interest, however, were not the product of any active support to government securities. The central bank did not buy such securities in an effort to support their prices. The low rates were the product of other policies, e.g., the practice of restricting the negotiability of certain assets for some time, the acceptance of blocked money in payment of taxes, the prevalence of direct controls, repressed inflation, and an abundance of liquid assets inherited from the war which were not fully consolidated into long-term debt.

At the end of 1949, the total amount of liquid assets in the hands of the public (i.e., excluding banks) was large. The near-money assets[31] held by the public amounted to nearly one fifth of the national income;

[31] The near-money assets include short-term Treasury securities, tax certificates, freely available balances at the Treasury, cash advances and day-to-day loans to municipalities, etc., and time deposits. For a description of these items see the Netherlands Bank, *Report for the Year 1951* (Amsterdam, 1952).

and although precise comparisons with earlier years are not possible, it is clear that the inflationary potential in the economy was by no means small.

The situation at that time may be summarized as follows: The excess money supply had been worked off, but the amount of near-money assets and the elasticity of the credit system were still large. Apart from the qualitative control over bank credit, there was very little check on the ability of the banking system to shift from government to private loans. In the meanwhile, considerable progress had been made toward eliminating current inflationary pressures, particularly during 1949. The improvement in the budgetary position, combined with large foreign assistance, and the recovery of production were responsible for this outcome. But insofar as the internal equilibrium was dependent on the large import surplus made possible by foreign aid, it cannot be taken as a perfectly satisfactory one.

Inflationary pressures and monetary policy, 1950–52

During 1950 and the first half of 1951, the expansion of bank credit and the use of privately owned near-money assets did lead to the emergence of active inflationary pressures. The fillip to demand was given first by the liberalization of trade with the OEEC countries, and second, and more so, by the Korean war. For the first time since 1947, bank credit expanded faster than production. The Netherlands balance of payments took a sharp adverse turn; and after the autumn of 1950, the Government introduced various monetary measures to head off inflation at home. At the same time, the balance of payments deficit played a vital role in absorbing the excess liquidity of the general public (and to a lesser extent of banks). Despite the large expansion of bank credit during 1950 and the first half of 1951, the external deficit helped to reduce the money supply and near-money assets held by the public. In June 1951, these two types of liquid resources amounted to only one half of the national income, against nearly two thirds of the national income at the end of 1949. In September 1950, the discount rate of the Netherlands Bank was raised for the first time since 1941—from 2½ to 3 per cent. This increase, however, was not effective in view of the ability of the banks to shift from government to private loans. The attack on bank liquidity came with the quantitative reserve requirements introduced in January 1951. The required reserves were both in cash and short-term Treasury obligations. This was in contrast to the U.S. policy, but in line with the practice in Belgium. The required reserves were different for different types of banks. The large commercial banks reporting regularly to the central bank had to keep reserves in

specified assets to the extent of 90 per cent of such assets at the base date plus (or minus) two thirds of the increase (or decrease) in deposits since that date.[32] As a counterpart to this measure, the provision requiring the central bank's approval for loans in excess of 50,000 guilders was dropped. The direct and discretionary supervision of hundreds of loans was thus replaced by a simple and uniform discipline for each group of banks.

The rapid expansion of bank loans in early 1951 and the compulsory reserve requirements made it necessary for the banks to have recourse to the Netherlands Bank. Advantage was taken of this situation in April 1951, when the discount rate was raised from 3 to 4 per cent. Unlike the increase in September 1950, the 1951 increase was effective in the sense that it increased the cost of borrowing to the banks and thus obliged them to charge higher rates to customers.[33]

The government rates of interest also showed an upward trend in the market, particularly in 1951. Some steps were taken to issue new securities at higher interest rates in response to this development. Thus, in April 1951, and again in July 1951, the maximum interest rates for loans floated by local authorities were increased. There was no interference in the bond market, and the 25-year State loan raised in April 1951 was at the slightly higher yield of 3½ per cent. The offer rates on Treasury bills, however, were not raised, in sharp contrast to what happened in the United Kingdom; the compulsory reserve requirements in the Netherlands would have made such a move much less significant than it was in the United Kingdom.

By the middle of 1951, the monetary measures outlined above had begun to yield results and the balance of payments situation took a favorable turn. Apart from the restrictive credit policy, a number of other measures,[34] together with the fall in international prices, were responsible for the remarkable improvement in the economic position, and it would be difficult to sift the impact of different policy measures. The extent of the improvement may be shown by a few illustrations, however: After increasing by nearly 36 per cent between June 1950 and

[32] Even these banks were given the option of choosing a credit ceiling which limited their credits to industry to an amount 5 per cent higher than the level reached on the base date. Different provisions had to be made for smaller banks and agrarian banks, thus illustrating the need for complex arrangements in a scheme of reserve requirements.

[33] Another step, of a somewhat different nature, was taken in May 1951, when forward purchases of foreign exchange were made subject to a 25 per cent advance payment in guilders. This added to the pressure on bank reserves insofar as importers had to seek credit at an earlier stage. The provision was withdrawn in the second half of the year.

[34] For example, the reduction of subsidies and other government expenditures, reduction of the building program, acquiescence in a cut in real wages by the trade unions, higher taxes, and some tightening of import restrictions.

May 1951, commercial bank credit to business and individuals actually declined by 6 per cent in the next twelve months. The corresponding changes in wholesale prices were a rise of 29 per cent in the first period and a fall of 4 per cent in the second. In January-May 1952, the ratio of exports to imports was 94 per cent, compared with 67 per cent in the corresponding period of 1951. The net gold and foreign exchange holdings of the Netherlands Bank increased from an equivalent of US$235 million in July 1951 to US$788 million in July 1952. The response to the loans floated by municipalities and provinces was greater than in earlier years.

Relaxation of credit restrictions, 1952

In the wake of the general improvement in the balance of payments situation, some steps were taken in 1952 for liberalizing credit conditions. The discount rate was reduced from 4 to 3½ per cent in January, and again to 3 per cent in August. In April, the compulsory reserve requirements were lifted, with the result that the only credit control left in operation was the informal one of general supervision exercised by the central bank. However, early in 1952, an act was passed whereby the central bank was given well-defined but extensive powers of control over bank credit.[35] Prior to the passing of this act, the central bank's powers in this field were generally exercised by virtue of certain emergency powers acquired in 1945 at the time of the currency reform. The 1952 act, however, is to cease to have effect on January 1, 1955, unless experience warrants its continuation.

In May and August 1952, the offer rates on short-term Treasury paper were lowered. Thus, the selling rate for 3-month Treasury paper was reduced from ¾ to ⅜ per cent, and for 1-year paper from 1½ to 1 per cent. The large export surplus naturally tended to lower interest rates, and the commercial banks showed a readiness to absorb Treasury paper. From July 1951 to July 1952 (13 months), the commercial bank portfolio of government paper increased by nearly 900 million guilders. It would seem from this experience of the Netherlands that prompt anti-inflationary measures can be successful without raising interest rates to too high a level or for too long a period. The promptness with which the tighter money policy of 1950–51 has been reversed in 1952 has shown the monetary policy in the Netherlands to be flexible in both directions.

[35] These powers include prohibiting certain loans, putting a limit to certain types of loans, prescribing reserve requirements in the form of different assets in relation to deposits or parts of them, etc. However, the central bank is enjoined to consult credit institutions before exercising these powers.

The increase in foreign exchange reserves has naturally added to the liquidity of the economy. The banks' holdings of government assets in relation to private loans are greater now than they were a year ago, and the public, too, holds more liquid assets. In July 1952, the money supply was approximately 15 per cent higher than a year earlier. But the foreign exchange reserves of the country had increased even faster and provided a better cushion against any flight from liquid assets.

The Mexican Balance of Payments, 1947-50

Timothy D. Sweeney*

MEXICO offers a unique opportunity for studying the effects of devaluation on the international accounts of an underdeveloped country, as it is the only underdeveloped country without exchange restrictions in which there has been an exchange devaluation in the postwar period. The part played by the United States in every sector of the Mexican goods and services account is so predominant that a study confined to U.S.-Mexican transactions will give a fair enough picture of Mexico's international position as a whole. The present study necessarily stops short of a complete account of both the long-term and the short-term effects of devaluation. Some of these long-term consequences undoubtedly had not become fully effective at the time when the outbreak of hostilities in Korea began a new series of price movements which became the dominant factor in the Mexican balance of payments in the second half of 1950 and in 1951. It is extremely difficult to distinguish statistically between the effects of devaluation and the effects of these other influences which were determining the course of world prices in the second half of 1950 and in 1951. Moreover, though attention is given to the hypothetical record of changes that would have developed if there had not been a devaluation, the statistical information needed for this purpose is necessarily inadequate for some of the major items in the Mexican balance of payments.

During World War II, the gold and foreign exchange reserves of the Bank of Mexico increased greatly, from $54 million at the end of 1941 to $344 million at the end of 1945. The rise was due primarily to a substantial expansion of tourist receipts and unilateral transfers; the value of imports increased by about the same amount as the value of exports. In 1946 the situation changed drastically. Though tourist receipts were still high, receipts from unilateral transfers fell and the increase in the value of imports far outstripped the increase in exports. Receipts from unilateral transfers came mainly from Mexican contract labor in the United States. With the end of the war and the demobilization of the U.S. armed forces, the demand for Mexican labor slackened and their transfers to Mexico fell correspondingly. Wartime shortages of both con-

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sumers' and investment goods in Mexico had built up a considerable backlog of pent-up demand, which was only partially satisfied by the large increase in imports in 1946. Also, the removal of price controls in the United States and the attendant rise in prices resulted in rapidly rising prices for Mexican imports. The volume of exports appears to have increased little in 1946, and export prices rose less rapidly than import prices.

All these changes together produced serious balance of payments difficulties. Between the end of 1945 and the end of 1946, the Bank of Mexico's gold and foreign exchange reserves fell by $121 million. The situation continued to deteriorate in 1947, and the rate at which the Bank of Mexico was losing reserves in the early part of the year reached such proportions that the Government was forced to take a series of drastic steps, including prohibitions against "nonessential and luxury" imports, a downward revision of export duties, and an upward revision of import duties. These measures, however, failed to halt the drain on reserves, which continued throughout the first half of 1948, and the fixed rate of exchange of 4.86 pesos per U.S. dollar was abandoned on July 22.

In September 1948, President Aleman, in a message to Congress, announced a 23-point program to combat the effects of exchange depreciation.[1] The exchange rate was to be allowed to seek its "natural" level; the federal budget was to be balanced; credit was to be provided only to meet the legitimate needs of business; an embargo and taxes were to be levied on certain exports, to increase the domestic supply and to hold domestic prices down; and measures were to be introduced to improve productivity and increase output. A 15 per cent ad valorem duty had already been imposed on all exports "to prevent articles of export from going up in price within Mexico and so that a portion of the foreign exchange gain (by the peso devaluation) be absorbed by the State as it has to meet unusual expenditures."[2]

After some fluctuation, the exchange rate was held for a considerable period at between 6.85 and 6.89 pesos per U.S. dollar, with the help of market intervention by the Bank of Mexico. In February 1949, however, the rate began to fluctuate again, falling at times to 7.90 pesos. Intervention by the Bank of Mexico restored it to around 6.97 pesos. Toward the end of April 1949, the rate again lost ground and, despite frequent intervention by the Bank, it fluctuated for some time between 8 pesos and 8.60 pesos. (The 8.60 peso rate was exceptional, however, and was quoted for only part of one day.) Beginning June 17, 1949, a new *de jure* par value of 8.65 pesos per U.S. dollar was established.

[1] Banco Nacional de Mexico, S.A., *Review of the Economic Situation of Mexico*, September–October 1948, pp. 5 ff.
[2] *Ibid.*, pp. 9 and 12.

At the 6.85–6.89 peso rate, the Bank of Mexico first gained and then lost reserves. After the adoption of the new par value in June 1949, reserves increased fairly substantially, but then declined a little in the first six months of 1950.

Thus, in order to bring her international exchange accounts into balance, Mexico in a two-year period tried, successively, import restrictions, import tariff increases, and export tariff reductions, and, in effect, two exchange devaluations. In addition, the Government adopted a disinflationary fiscal and restrictive credit policy, balancing the federal budget in 1949 and 1950. By the end of 1949 there was a surplus in Mexico's international goods and services account (Table 1).

TABLE 1. MEXICO'S INTERNATIONAL GOODS AND SERVICES ACCOUNT, 1946–50[1]

(In millions of U.S. dollars)

	1946	1947	1948	1949	1950
Exports (f.o.b.) including nonmonetary gold	365.2	481.8	471.9	434.8	531.5
Imports (c.i.f.)	−600.0	−719.2	−597.4	−519.9	−597.4
Trade balance	−234.8	−237.4	−125.5	−85.1	−65.9
Foreign travel	87.3	82.8	104.1	133.3	156.2
Investment income	−57.4	−92.5	−76.9	−57.0	−65.9
Other services	36.3	34.5	21.8	18.9	15.7
Total goods and services	−168.6	−212.6	−76.5	10.1	40.1

[1] No sign indicates credit; minus sign indicates debit.
Source: International Monetary Fund, *Balance of Payments Yearbook*, Vol. 4, p. 188.

Between 1947 and 1950 there was a net change of $252.7 million in the Mexican goods and services account. Exports had increased by $49.7 million, and net receipts from foreign travel by $73.4 million. Imports had fallen by $121.8 million, net payments for investment services by $26.6 million, and receipts on account of "other services" by $18.8 million. The purpose of this paper is to assess quantitatively the part played in these changes by the various measures taken in 1947–49 to attain balance. The analysis begins with their effects upon the nontrade items, and then discusses the effects on exports and on imports.

Nontrade Items

Foreign travel

Foreign travel is the most important of the three main nontrade items in the Mexican international goods and services account. It is also the

item most likely to be affected by such a corrective measure as devaluation. The fall in the value of the peso relative to other currencies was expected to increase the number of tourists and the volume of their expenditures in Mexico, and to reduce the number and expenditures of Mexicans going abroad.

Any estimate of the effects of the devaluations on the Mexican travel account is necessarily somewhat arbitrary, and yields at best only a rough approximation. On both the receipts and the payments side, the picture is completely dominated by U.S. transactions. According to Mexican data, the United States received in 1946 and 1947 more than 90 per cent of Mexican travel payments, while more than 97 per cent of Mexican travel receipts came from the United States. There is, therefore, no risk of serious error if the analysis is confined to U.S. transactions.

A very large proportion of Mexican travel payments to the United States (88 per cent in 1946 and 89 per cent in 1947) and of Mexican travel receipts from the United States (45 per cent in 1946 and 46 per cent in 1947) arise in connection with border visits, which are largely a consequence of the economic interdependence between the towns on either side of the boundary line, and unlikely to be much affected by devaluation. Mexican travel to the interior of the United States is predominantly for business, health, or family reasons, and it might also be expected that devaluation would have no substantial effects upon this expenditure. Mexican travel payments with the United States had indeed been rising irregularly before the devaluations, and, but for the devaluations, might have been expected to rise somewhat further in 1949 and 1950.

The more important question is the effect of the devaluations on U.S. tourist traffic in Mexico. In seeking an answer to this question, it is convenient to use U.S. data, which are available on a quarterly basis and, therefore, make it possible to trace in detail the movements of travel payments and receipts throughout the period affected by the devaluations.[3] The use of U.S. data should make it possible to isolate the effects of the devaluations on Mexican travel receipts by comparison

[3] Mexican travel data are consistently higher than U.S. data; the explanation of this difference is not known. The difference between the two was unusually great in 1948, when Mexican data showed large increases (in dollars) for both travel payments and travel receipts, whereas according to the U.S. data there were no such increases. It is reported that "since the depreciation of the peso in 1948, an increase in the number of travelers to Mexico has occurred, although total expenditures in Mexico had not been materially affected by the end of 1948" (U.S. Department of Commerce, *The Balance of International Payments of the United States, 1946–48*, p. 78), and it is thought that the Mexican figures may be based upon the 1948 number of tourists, multiplied by the estimated average expenditure per tourist in the previous year, rather than by the average expenditure of 1948, which, according to the U.S. Department of Commerce, was lower.

with the record in relation to U.S. travel in other contiguous areas. In fact, only the Canadian record can be studied with advantage for this purpose, as certain special factors which affect the U.S. travel accounts with Cuba and the Caribbean area during 1948–50 destroy the usefulness of any comparison between these accounts and the Mexican account.[4]

Although the records of U. S. travel expenditures in Mexico and Canada between 1940 and 1947 show some divergence (Table 2), there is sufficient similarity to justify the view that the difference between the trends in 1948–50 can be accepted as a fair indicator of the effects of the devaluations upon travel in Mexico.

TABLE 2. U.S. TRAVEL EXPENDITURES IN MEXICO AND CANADA, 1940–50

(In millions of U.S. dollars)

Year	Mexico	Canada	Year	Mexico	Canada
1940.....	$57	$89	1946.....	$125	$209
1941.....	69	97	1947.....	115	241
1942.....	60	72	1948.....	116	267
1943.....	71	79	1949.....	134	265
1944.....	79	106	1950.....	145	261
1945.....	92	150			

Sources: Data for 1940–45 are from U.S. Department of Commerce, *International Transactions of the United States During the War 1940–45*, p. 61; those for 1946–50 are from U.S. Department of Commerce, *Survey of Current Business*, March 1950, p. 18, and May 1951, p. 21.

U.S. travel expenditures in Canada, which had fallen between 1941 and 1943, principally because of the gasoline and tire shortages, rose rapidly in the period 1944–48. The subsequent leveling-off in 1949 and 1950 was to be expected, for it could not reasonably be assumed that the rate of expansion of automobile traffic that had been taking place would be maintained. Also, the leveling-off appears in line with the leveling-off of recreational service expenditures and the increased expenditures on consumers' durable goods in the United States.

U.S. travel to Mexico, on the other hand, had been affected by the gasoline and tire shortages in 1942 and 1943 much less than travel to Canada, and the rise in travel expenditures after 1943 was not so steep. Also, the subsequent leveling-off began somewhat earlier than in Canada; in both 1947 and 1948, U. S. travel expenditures in Mexico were less than in 1946. After the devaluation of July 1948, however, in contrast with the Canadian record, U.S. travel expenditures in Mexico increased

[4] A bad season in Florida in 1948, the result of unfavorable weather conditions, affected travel to Cuba, which is normally closely correlated with Florida travel, and variations in cruise facilities make inappropriate any comparison between the trends of U.S. travel expenditures in Mexico and in the Caribbean area (including Bermuda).

from an annual rate of $114 million in the first half of 1948 to an annual rate of $128 million in the first half of 1949; and after the devaluation of June 1949, they rose further, to an annual rate of $142 million in the first half of 1950. These two successive increases of $14 million, or $28 million in all, cannot indeed be regarded as measuring accurately the effects of the devaluations on travel expenditures in Mexico. Even if there had been no devaluations, some increase in these expenditures might have been expected in 1949 and 1950 in response to the continuing improvement of transportation and other facilities in Mexico, and the Mexican Government's intensified campaign for U.S. tourist dollars. But some increase in Mexican travel payments to the United States might also have been expected. These payments had been rising rather irregularly up to 1946, and, except for the effects of the import restrictions of July 1947 and of the devaluations, might have been expected to continue to rise. The increase of $28 million may therefore, perhaps, be accepted as a fair approximation of the net effects of the devaluations on the Mexican travel account as a whole.

Investment income

Mexico is a debtor country, and during 1947–50 there were two dominant forces—the devaluation of the peso and the recession in world raw material prices in 1949—that influenced its payments on investment services account. Certain investment income payments, such as interest, are dollar liabilities, and although the devaluations increased the peso burden of these interest charges, they did not change their dollar value. Interest payments, however, account for only a small part of Mexico's total payments on investment services account (Table 3). Of much greater importance are the payments resulting from direct, or equity, investment, which are, in effect, peso liabilities. The dollar value of these

TABLE 3. MEXICAN PAYMENTS TO THE UNITED STATES ON INVESTMENT SERVICES ACCOUNT, 1947–50

(In millions of U.S. dollars)

	1947	1948	1949	1950
Payments resulting from direct investment[1]	42	38	13	34
Interest payments[2]	2	3	2	2
Total	44	41	15	36

[1] U.S. Department of Commerce, *Survey of Current Business*, October 1951, p. 12, Table 4.
[2] Compiled by U.S. Department of Commerce.

dividend payments[8] was strongly affected by both the devaluations and the price recession. This dollar value is related to the exchange rate in two ways: There is the direct effect of the recalculation of peso dividends at a new rate of exchange; given the peso value of the dividend payments, their dollar value will change in proportion to changes in the exchange rate. Also, there is an indirect effect resulting from the increased peso prices of exports whose dollar prices are set in a world market. In Mexico, for example, an increase in the peso prices of minerals means higher peso profits for the mining industry, in which much of Mexico's foreign capital is invested, and larger peso dividend payments on investment services account. In the case of the Mexican devaluations, however, this indirect effect was considerably weakened by the imposition in August 1948 of a 15 per cent ad valorem export tax, which practically halved the effect of the devaluation on export prices. The transmission of profits, however, was subject to the full direct effect of the change in the exchange rate.

Any estimate of the effects of the devaluations on these payments can be only a rough approximation. The data are very limited and do not permit the effects on payments of world price movements to be distinguished statistically from the effects of the devaluations. The only data available (shown in Table 3) are on an annual basis, so that the shorter periods used in estimating the effects of the devaluations on travel account cannot be used here. However, the differences between the payments in 1947, 1948, and 1949 may be taken as approximate measures of the combined influence of the devaluations and of world price movements on investment income payments.

As a first approximation, an estimate of the effect of the devaluations may be confined to their direct effects. These effects may be calculated by revaluing the 1947 dividend payments at the new rates of exchange, on the further assumption that, if world prices had remained constant, the 1947 level of dividends in pesos would have been maintained in the two succeeding years. This calculation yields $12 million as the estimated decline in dividend payments resulting from the fall in the exchange rate to the 6.85–6.89 rate, and $18 million as the combined effect of the two devaluations, i.e., the total decline in the exchange rate from 4.86 pesos per dollar to 8.65 pesos per dollar. These estimates should represent an upper limit to the effect of the devaluations on investment income payments. Alternative calculations, which estimate the effects of the devaluations as residuals by attempting to estimate directly the influence of changes in world mineral prices in dollars on dollar dividend payments, yield even higher estimates. The $18 million estimate may, therefore,

[8] The term "dividend payments" is used here and in the rest of this section to cover all income transfers, such as dividends, branch profits, etc., resulting rom equity investment.

be accepted as reasonable, with the caution that it is at best only a rough approximation, and that measurement of the indirect effects would probably reduce it a little.

"Other services"

The main item in the "other services" account is the personal remittances of Mexican contract labor in the United States. During World War II, when there was a severe labor shortage in the United States, receipts on this account were high. Receipts in 1947–50, though not nearly so high as during the war, were fairly stable, amounting to $22.7 million in 1947, $21.9 million in 1948, $18.1 million in 1949, and $20.0 million in 1950.[6] There was no reason to expect that the devaluations would have much effect on these receipts and, while there was some decline in the residual items in the account, this decline was probably not due to changes in the exchange rate.

Exports

Mexican exports are predominantly raw materials, and their major market is the United States. The proportion of Mexican exports sold in the United States, which had been 51 per cent in 1937, has consistently exceeded 75 per cent since the end of the war, and in 1950 was 86 per cent. The most important exports are of mineral extraction, though in recent years agricultural commodities (primarily cotton) and fish have become increasingly important.

The 1947 reductions in export duties and the devaluations in 1948 and 1949 were expected to increase the volume of exports. Also, since the dollar prices of most Mexican exports are set in world markets, their prices in pesos were likely to be increased. The price incentive effects of the tariff reductions and the devaluations were offset considerably by the 15 per cent ad valorem tax imposed on exports in August 1948. This tax was imposed so that the Government might share in the windfall profits accruing to exporters as a result of the devaluation, but it was expected that a sufficient price incentive for expansion of production and exports would still be left.

The experience of the war suggests, however, that production of most Mexican export commodities is not particularly responsive to price movements. During that period, the prices of raw materials entering the United States were controlled, and the prices received by Mexican producers for most mineral products were remarkably steady. But despite this price stability, the volume of metal production varied widely. For

[6] U.S. Department of Commerce figures.

example, the output of zinc, whose price was practically unchanged throughout the war period, increased by more than 80 per cent between 1940 and 1945, and then in 1946 fell by one third. Copper, lead, gold, silver, and antimony, i.e., Mexico's major metal exports, have similar histories. These variations may, perhaps, be explained as responses to incentive payments for marginal output—a method of increasing output which was widely used in the United States during the war. In the post-war period, while mineral prices have risen sharply, output has varied very little. The output of zinc in 1948 and 1949 was well below the level maintained in 1942–45.

Production of petroleum and petroleum products, which is controlled by a government monopoly, PEMEX, has been restricted more by capacity limitations than by the inadequacy of price incentives. If production were to be expanded significantly, additional investment in new wells and equipment would be a more important factor than higher prices.

Cotton production, also, had been restricted more by physical than by economic limitations, being affected by both the vagaries of weather and the amount of suitable land available; but as the Government's irrigation program made more land available, cotton production increased. Also, the Government placed an embargo on certain cotton exports in 1950 in order to maintain domestic supplies at relatively stable prices.[7]

Thus, factors other than price incentives appear to have been responsible for limiting production (and therefore exports) of many of Mexico's major export commodities, and the effect that devaluation could have on the volume of exports as a whole was rather limited. The mining industry had complained of unprofitableness, so that increased peso prices for its output might have been expected to increase production, or to check any tendency toward decline. But higher prices were more likely to produce higher profits than higher production. Measures other than devaluation appear to have been called for if output was to be expanded.

There were, of course, some lines that were likely to benefit by devaluation. Cotton textiles, for example, had been plagued by high costs and prices which were no longer competitive in world markets. Devaluation, however, was more likely to check any tendency for exports to fall rather than to increase their volume.

Thus, all in all, it appears that there was no good reason for expecting much increase in the volume of Mexican exports as a result of the export tariff reductions and the devaluations.

[7] Banco Nacional de Comercio Exterior, S.A., *Comercio Exterior de Mexico*, p. 180.

What happened to Mexico's exports to the United States after the devaluations is indicated by the data in Table 4. The fact that the data for 1947 and 1948 are not strictly comparable makes it difficult to estimate the effects of the November 1947 reductions of export taxes. (The 1947 figures are available only for *general* imports, while those for 1948–50 cover imports for consumption, which usually are about 6 per cent less than general imports.) However, since the reductions were small, and in view of the inelasticity of production of export commodities, it seems reasonable to assume that their effects on exports were negligible.

Three of the main export groups, "edible animals and animal products", "nonmetallic minerals", and "metals and manufactures", which together accounted for about 40 per cent of U.S. imports from Mexico in 1947, show increases after the devaluations, which might *prima facie* be interpreted as responses to the devaluations.[8] For two of these groups —"nonmetallic minerals" and "edible animals and animal products"— however, the changes may be discounted, since they probably were mainly the result of other causes.

The increase in exports of nonmetallic minerals was accounted for almost entirely by petroleum and petroleum products. PEMEX, the Government's petroleum monopoly, has pursued a policy of expansion in recent years; while most of the increase in production went to meet the expanding needs of the domestic market, where prices were kept relatively stable and a stimulus was thus given to increased consumption, some of the increase was allocated to foreign markets. The decision to encourage domestic consumption might well have conflicted with the desire to encourage exports, so that any actual increase in exports was likely to be a residual and should not be attributed to the devaluations.

Among edible animal and animal products, fresh and refrigerated fish accounted for the increased exports. There has, since the end of the war, been a rapid expansion of a commercial fishing industry, which sells in San Diego and San Pedro, California, and this might have been expected to continue independently of devaluation.

Thus, the increase in exports of metals and manufactures appears to be the most important export movement that can be reasonably attributed to the devaluations. The value of exports of this group increased by $39 million (annual rate) between the first half of 1948 and the first half of 1949, but declined by $12 million between the first half of 1949 and the first half of 1950. It is, however, necessary to distinguish here between the effects of the devaluations and the effects of the rather large world price movements that occurred at the same time. It was primarily

[8] The changes in exports, like the changes in the foreign travel account, have been measured by comparing the figures for the first half of 1949 and the first half of 1950 with that for the first half of 1948.

TABLE 4. U.S. IMPORTS FOR CONSUMPTION FROM MEXICO, 1947–50[1]

(Annual rates in thousands of U.S. dollars)

Commodity Group	1947[2]		1948		1949		1950	
	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half
Animals and animal products, edible	6,842	9,584	12,004	15,292	15,884	18,796	20,494	22,998
Animals and animal products, inedible	3,816	3,124	3,894	3,290	4,668	2,644	3,714	3,130
Vegetable food products and beverages	83,710	52,378	96,276	41,398	87,522	48,628	82,614	62,364
Vegetable products, inedible, except fibers and wood	28,030	6,644	6,958	17,804	11,690	7,152	4,106	18,516
Textile fibers and manufactures	28,620	37,906	27,150	22,332	15,646	19,838	24,334	34,918
Wood and pulp	12,600	16,942	14,380	12,316	7,898	10,454	18,110	21,902
Nonmetallic minerals	18,082	27,210	17,426	9,446	15,646	20,336	29,074	37,122
Metals and manufactures	69,598	68,288	59,040	95,168	97,672	64,184	86,160	100,108
Machinery and vehicles	160	210	506	184	146	118	268	142
Chemicals and related products	1,642	1,348	1,186	632	686	760	1,274	3,548
Miscellaneous	8,930	7,718	8,242	5,990	6,295	5,266	6,904	7,296
Total	262,030	231,352	247,062	223,852	263,753	198,176	277,052	312,044

[1] Based on data from U.S. Department of Commerce, Foreign Trade Reports 120.

[2] Since the 1947 classification is available only for *general imports*, these figures are not comparable with the figures for 1948–50.

these price changes, rather than any change in volume, that accounted for the marked decline in the value of metals exports in the second half of 1949. Copper, lead, and zinc comprise more than 90 per cent of Mexico's exports of metals and manufactures to the United States. If the value of this group of exports is deflated by a price index[9] of the U.S. prices of these metals, the volume may be estimated to have increased by 55 per cent after the first devaluation, and by 22 per cent after the second devaluation, or by $31 million and $13 million (at 1948 prices), respectively.

This change in Mexico's metals exports may be regarded as a rough approximation to the change in Mexico's total exports to the United States that is attributable to the devaluations. The U.S. share of Mexico's exports was increasing during this period, and it is possible that the increase was, in part, due to a diversion of exports that would otherwise have gone elsewhere, especially when the low elasticity of supply of these metals is remembered. Thus, even though exports to the United States apparently changed as a result of the devaluations, Mexico's exports to the world as a whole may not have been similarly affected, or not to the same extent.

Imports

The growth in imports immediately after the war was the primary reason for the imbalance in Mexico's balance of payments and the decline in the Bank of Mexico's holdings of gold and foreign exchange. During the period 1945–47, imports, growing more rapidly than any other item in the goods and services account, doubled in value; exports increased by only 64 per cent. It was against the effects of the growth in imports that the various corrective measures were primarily directed, and it was expected that the greatest results would be seen in imports.

Import prohibitions and import tariff increases

The import surplus and the ensuing decline of gold and foreign exchange reached such proportions in the first half of 1947 that the Government was forced to take drastic measures to correct the situation. Between the end of December 1946 and the end of June 1947, the foreign assets of the Bank of Mexico fell by slightly more than $50 million. On July 11, 1947, the Mexican Government published a list of items whose importation was temporarily prohibited. While throughout the period July 1947 to July 1950 new items were added to the list almost continuously, and from time to time some items were removed, it was the initial list of prohibitions that was the most important and that had the

[9] The arithmetic average of the price relatives.

greatest impact on imports. Later additions and deletions were comparatively unimportant. The initial list of July 11 included articles in 128 tariff classifications which were deemed to be nonessential.[10] Imports of these articles had amounted to $80 million in 1946 and to $110 million (annual rate) in the first five months of 1947, or 17.5 per cent of total imports in 1946 and 20.4 per cent of those in 1947.[11]

While the import prohibitions were intended as a temporary measure, pending improvement in the balance of payments, their main purpose was exchange conservation, although they also provided protection for certain sections of Mexican industry.[12] On the other hand, the general tariff revision, promulgated November 13, 1947, had as its primary purpose the protection of Mexican industry. The revision was intended to restore the protective and fiscal levels of 1942 and to give protection —sometimes at prohibitive tariff rates—above the 1942 levels to industries newly developed in the intervening five years.[13] The increased tariff rates were likely also to have some balance of payments effects, but this was not their primary purpose.

In assessing the effectiveness of the import prohibitions, it must be kept in mind that their full effectiveness was necessarily delayed by the way in which they were applied. The effective shut-off date for many of the prohibited imports was in October 1947, and even after that date imports of some prohibited articles were allowed under certain conditions. By the first half of 1948, however, the entry of prohibited articles, except as contraband or because of poor enforcement of the embargo, had practically ceased. Since this was also the period in which the tariff increases went into effect, it is extremely difficult to separate statistically the effects on imports of the two measures without a more painstaking analysis of detailed records than is feasible in this study. Therefore, no attempt has been made to distinguish between the two sets of effects, which for convenience are discussed together simply as the effects of the import prohibitions. This probably is not misleading, for the average

[10] The classes of commodities affected by the Government's suspension order were canned meat; certain fresh, dried, and canned fruit; wood and metal furniture; tanned furs and fur-wearing apparel; bags, wallets, and purses of leather; cut diamonds; glass and crystal ware; jewelry; refrigerators; certain wearing apparel and hosiery; coated cotton cloth; velvets; carpets; certain cosmetics; wines; kraft paper and cardboard; certain advertisements; catalogs and calendars; phonographs; pianos; watches; assembled automobiles; trucks and buses; cigarettes; automotive chassis; and automobile wheels with tires. For a complete list of restricted items see U.S. Department of Commerce, *Foreign Commerce Weekly*, July 19, 1947.

[11] U.S. House of Representatives, Committee on Interstate and Foreign Commerce, *Fuel Investigation: Mexican Petroleum* (Washington, D. C., 1949), p. 108.

[12] *Ibid.*, p. 109.

[13] *Ibid.*, p. 106.

increase in tariff rates appears to have been moderate, and the impact on imports also was probably moderate.

The effects of the import prohibitions. The importance of the United States as a supplier of Mexican imports is no less than its importance as a market for Mexican exports. Throughout the period 1947–50, the United States maintained a relatively constant share of the Mexican market for imports, accounting for 88 per cent of the total in 1947 and 1950, and for 87 per cent in 1948 and 1949. In relation to imports, it is therefore again permissible to accept the results of a study of the effects of prohibitions on Mexican imports from the United States as a fair indication of the general effects of the prohibitions.

In the period after the prohibitions became effective, i.e., the first half of 1948, the annual rate of the value of Mexican imports from the United States, as measured by U.S. exports to Mexico, was $533 million, or $117 million less than the annual rate in the first half of 1947. Since U.S. export prices were rising during that period, the decline in the volume of Mexico's imports was more striking than the decrease in value.

Since the import prohibitions of July 1947 applied not to aggregate imports but to specific articles, it might have been expected that imports of nonrestricted articles would be directly substituted for restricted articles, or that demand might be shifted from restricted imports to domestic goods, thus leading to an expansion in domestic activity and subsequently to increased imports. In either case, the curtailment of imports attributable to the prohibitions would be expected to be less than the value of prohibited imports in the period preceding the embargo. In fact, however, Mexican imports were strikingly reduced in the period after the prohibitions. The questions, then, arise: How much of this decline was due to the prohibitions and how much to other causes? What were the other causes?

A comparison between (1) the declines from the first half of 1947 to the first half of 1948 in the major commodity groups of Mexican imports and (2) the 1947 value of the prohibited articles included in each of these groups is given in Table 5. These data show little correlation between the declines and the 1947 value of imports of prohibited articles in the same groups, and this suggests that the embargo was not the only factor curtailing imports in 1948.

The largest absolute decline was in the machinery and vehicles group. This decline, however, was considerably smaller than the 1947 imports of prohibited articles in this group, of which the most important were automobiles, parts, and accessories. The prohibitions restricted the entry of assembled automobiles, but import quotas were granted to domestic

TABLE 5. VALUE OF MEXICAN IMPORTS BY MAJOR COMMODITY GROUPS

(Annual rates in thousands of U.S. dollars)

Commodity Group	Imports from United States			Imports in 1947 from All Countries of Prohibited Articles[1]
	Jan–Jun 1947 (1)	Jan–Jun 1948 (2)	Col 1 minus col 2 (3)	(4)
Animals and animal products, edible	19,236	13,784	5,452	290
Animals and animal products, inedible	6,960	4,640	2,320	1,310
Vegetable food products and beverages	40,590	37,764	2,826	6,180
Vegetable products, inedible, except fibers and wood	16,416	11,906	4,510	—
Textile fibers and manufactures	33,280	21,726	11,554	5,790
Wood and paper	20,994	18,996	1,998	3,230
Nonmetallic minerals	38,984	38,132	852	1,600
Metals and manufactures	76,822	55,878	20,944	6,190
Machinery and vehicles	283,844	235,566	48,278	87,470
Chemicals and related products	47,850	44,794	3,056	530
Miscellaneous	53,938	40,438	13,500	3,950
Total[2]	638,914	523,624	115,290	116,540
Total	649,486	532,672	116,814	

[1] Articles prohibited by Mexican Government embargo of July 11, 1947.

[2] This total is the sum of the group entries in the table. The total in the line below is a later figure published in the *Survey of Current Business*. Detailed figures on which the latter totals are based have not been published, however.

Sources: Cols. 1 and 2 are from U. S. Department of Commerce, Foreign Trade Reports 420. Col. 4 is based on data from *Anuario Estadistica del Comercio Exterior de los Estados Unidos Mexicanos, 1947* (Mexico, D.F., 1948), with the group allocations made according to the U.S. standard export classification list and converted to dollars.

assembly plants, and the continued import of parts for assembly in Mexico was permitted. Between 1946 and 1948, the number of vehicles assembled in Mexico rose from 10,460 to 21,597. This is an illustration of how the prohibitions were prevented from being more effective. The recorded decline of $48 million (annual rate) can, however, probably be safely interpreted as a measure of the effects of the prohibitions upon this import group.

Not much of the decline in the imports of other groups seems attributable to the prohibitions. Imports of textile fibers and manufactures, metals and manufactures, and miscellaneous commodities, taken together, fell by $46 million (annual rate) between the first half of 1947 and the first half of 1948. The fact that the 1947 imports of prohibited articles in these three groups totaled only $16 million suggests that most of the decline must have been the result of factors other than the prohibitions. When some allowance is made for such effects as local as-

sembly, or other substitutions for prohibited articles, an annual rate of $10 million seems a reasonable approximation of the probable effects of the prohibitions on imports in these three groups, the rest of the decline probably being due to a decline in demand. Industrial production slumped in the last half of 1947, and reached a low in the first quarter of 1948, when the production index was about 10 per cent lower than in the first half of 1947. This decline in activity undoubtedly weakened the industrial demand for raw and semifinished materials. Also, the high levels of imports in 1946 and 1947 and a slump in retail sales in 1947 left merchants complaining about the slowness of trade and their large and high-cost inventories. The postwar sellers' market had apparently disappeared by 1948, except for a few luxury imports—mainly automobiles.

Most of the remaining decline in imports was in the agricultural and forestry products groups, which decreased by about $17 million (annual rate) between the first half of 1947 and the first half of 1948. More than half of this decline, however, was in groups including few prohibited imports, i.e., edible animal products and inedible vegetable products. In the latter group it was primarily industrial raw materials[14] that declined, while in the former animal oils and fats accounted for most of the decrease. The decrease in industrial activity and a high level of domestic agricultural production probably accounted for most of the decline in these groups; a decline of about $5 million (annual rate) may perhaps be attributed to the prohibitions.

To sum up the effects of the prohibitions on imports, they appear to have accounted for roughly $65 million (annual rate) of the decline of nearly $120 million (annual rate) between the first half of 1947 and the first half of 1948. A slump in industrial activity and in retail trade, combined with high levels of agricultural production, probably account for most of the rest of the decline.

Effects of the two devaluations

After the first devaluation, the annual rate of Mexican imports from the United States declined from $533 million in the first half of 1948 to $515 million in the first half of 1949, i.e., by $18 million; and after the second devaluation the rate dropped to $458 million in the first half of 1950, i.e., by $57 million more (Table 6). Thus, while the peso was devalued by 44 per cent, the value of imports declined by only 14 per cent. Also, since in this period, 1948–50, the United States maintained a relatively constant share of the Mexican market, the fact that the

[14] Rubber and allied gums and manufactures, and naval stores gums and resins.

TABLE 6. VALUE OF MEXICAN IMPORTS FROM THE UNITED STATES, BY MAJOR COMMODITY GROUPS, 1947–50

(Annual rates in thousands of U.S. dollars)

Commodity Group	1948		1949		1950	
	1st half	2nd half	1st half	2nd half	1st half	2nd half
Animals and animal products, edible	13,784	10,424	10,194	9,078	8,506	9,980
Animals and animal products, inedible	4,640	5,232	4,708	2,580	2,380	3,042
Vegetable food products and beverages	37,764	34,228	24,618	25,254	32,552	43,766
Vegetable products, inedible, except fibers and wood	11,906	10,294	12,678	9,686	10,598	12,722
Textile fibers and manufactures	21,726	23,978	19,388	15,158	12,548	18,232
Wood and paper	18,996	13,846	12,722	10,940	11,410	16,540
Nonmetallic minerals	38,132	36,098	44,260	41,460	43,542	42,450
Metals and manufactures	55,878	56,242	64,496	47,982	53,110	56,596
Machinery and vehicles	235,566	222,792	233,872	165,264	178,014	256,152
Chemicals and related products	44,794	44,276	51,272	46,092	54,366	62,932
Miscellaneous	40,438	44,112	40,320	35,392	33,916	39,278
Total[1]	523,624	501,522	518,528	408,886	440,942	561,690
Total	532,672	508,060	515,472	408,960	457,588	574,888

[1] See Table 5, footnote 2.

Source: U.S. Department of Commerce, Foreign Trade Reports 420.

decline in imports from the United States was so small cannot be explained by any shift of demand for imports from other countries to the United States in 1949 and 1950.

The effect of the devaluations on imports, however, cannot be estimated simply by measuring the change in imports after the devaluations, for the value of imports was also affected by other factors, such as the change in real income in Mexico and Mexican fiscal and monetary policies.

Real income and imports. Real income in Mexico is reported to have increased by 16 per cent between 1948 and 1950.[15] An increase of such magnitude would be expected to have a considerable influence on the level of imports. The devaluations do not appear, moreover, to have been a significant factor in expanding income. Unfortunately, existing data do not permit a statistical estimate of the income elasticity of imports in Mexico. It may, however, be reasonably assumed that in Mexico a one per cent change in real income would induce at least a one per cent change in real imports, i.e., that the income elasticity of imports is at least unity; on this assumption, the effect of the change in income on imports can be separated.

National income data for Mexico are available only on an annual basis so that no direct comparison between the first halves of 1948, 1949, and 1950 is possible. Real income, however, is sufficiently closely correlated with the index of industrial production (which is available on a quarterly basis) to justify the use of this index to interpolate values for real income. The interpolated values show an increase in real income of 7 per cent between the first half of 1948 and the first half of 1949, and of 8 per cent between the first half of 1949 and the first half of 1950.[16] On the assumption of unit income elasticity of imports, the value of imports corresponding to these real incomes would, if there had been no devaluations and the income effect alone had operated, have been $571 million in the first half of 1949 and $614 million in the first half of 1950—at first half of 1948 prices. Actual imports, at first half of 1948 prices, were $548 million in the first half of 1949 and $526 million in the first half of 1950.

The difference between the two sets of figures—that is, between estimated imports based on increased income and no devaluations, and actual imports—may be taken as an approximate measure of the effects of the devaluations. The effect on imports of the first devaluation would then be estimated at $23 million, and of the two devaluations together

[15] Estimate from *Economic Development of Mexico* (Johns Hopkins Press, 1953).

[16] The regression equation of income on industrial production for 1947–50 is $Y = 104.9879\ P + 117.2485$, where Y = real national income in millions of 1939 pesos and P = the index of industrial production (1948 = 100). The income figures are from *Economic Development of Mexico, op. cit.*

at $88 million. Thus, the 44 per cent devaluation of the peso appears to have induced a 17 per cent decline in the volume of imports. It should be remembered, however, that these estimates are dependent on the assumption of unit income elasticity for imports and on the estimate of changes in real income in Mexico. However, any variations in these assumptions that might be regarded as reasonable would probably not substantially affect the results of the calculations. The estimate of the change in income is probably a little high, while the assumed unit income elasticity for imports may be rather low. Thus, any variations that could be regarded as reasonable would tend to offset each other, with little net effect upon the estimates of the effects of the devaluation on imports.

The acceptance of these differences (or residuals) as estimates of the effects of the devaluations on imports means that the effects of any other factors that might have restricted imports are ignored. One such possible factor was the increase in agricultural production in 1948–50. This increase, however, in absolute terms was many times the negligible decline in agricultural imports and appears to have had little effect on imports. Two other more significant possible factors were Mexican fiscal and monetary policy in 1948–50.

Mexican fiscal and monetary policy, 1948–50. As stated earlier, President Aleman's 23-point program to combat the effects of the devaluation of July 1948 called for the balancing of the federal budget and the provision of credit only to meet the legitimate needs of business. The Federal Government had a cash deficit of 204 million pesos in 1947 and of 305 million pesos in 1948. However, there was a cash surplus of 96 million pesos in 1949 and 121 million pesos in 1950 (Table 7). Since both money

TABLE 7. MEXICAN CASH EXPENDITURES AND RECEIPTS, 1947–50

	1947	1948	1949	1950
		Millions of current pesos		
Federal expenditures[1]	1,990	2,274	2,711	3,193
Federal receipts	1,786	1,969	2,807	3,314
Surplus (+) or deficit (−)	−204	−305	+96	+121
		Millions of 1948 pesos[2]		
Federal expenditures[1]	2,117	2,274	2,582	2,851
Federal receipts	1,900	1,969	2,673	2,959
Surplus (+) or deficit (−)	−217	−305	+91	+108

[1] Includes contributions to autonomous public agencies and state enterprises except the Social Security Institute and the General Office for Civil and Retirement Divisions. Transfers to the states and territories are excluded. Includes also expenditures financed with funds other than from the public sector.

[2] Data in current prices deflated by index of retail prices in Mexico City (1948 = 100). The variation in this series between 1948 and 1950 is the same as that in the implicit price index found by dividing the national income in current values (as given in the source) by real national income.

Source: *Economic Development of Mexico* (Johns Hopkins Press, 1953).

expenditures and expenditures in real terms continued to rise throughout the period 1948–50, the development of the cash surplus was not due to any reduction in expenditures. It was, rather, due to a sharp increase in receipts after 1948. While larger tax collections resulting from rising incomes and increased business activity were important causes of the increase in receipts, the most striking factor was the increase in collections from export taxes (Table 8). The 15 per cent ad valorem duty placed on exports in August 1948 raised receipts from export taxes from 5 per cent of total receipts in 1948 to 16 per cent in both 1949 and 1950.

TABLE 8. NET RECEIPTS OF MEXICAN FEDERAL GOVERNMENT, 1947–50

(In millions of pesos)

	1947	1948	1949	1950
Income taxes[1]	479	451	586	795
Export taxes[2]	104	98	459	540
Import taxes	252	323	345	420
Sales and consumption taxes[3]	295	281	384	482
All other	656	816	1,033	1,077
Total receipts	1,786	1,969	2,807	3,314

[1] Taxes on income and excess profits tax.
[2] Including the 15 per cent ad valorem tax imposed in August 1948.
[3] Taxes on gross sales or business income (formerly stamp tax), gasoline consumption, beer consumption, assembly of automobiles, sales of alcoholic beverages.
Source: *Economic Development of Mexico* (Johns Hopkins Press, 1953).

The anti-inflationary influence of the federal cash surplus was offset by an expansion in bank credit, which increased the money supply. Though the Bank of Mexico followed a restrictive policy in reducing the real volume of its loans to other banks and its holdings of short-term paper and rediscounts, its holdings of government securities and of "securities of businesses and individuals" (*inversiones de empresas y particulares*) increased, in real terms, by 70 per cent between the first half of 1948 and the first half of 1950 (Table 9). These increases in fact exceeded the curtailment of short-term credit by the Bank. During the same period, and despite frequent complaints in the banking press of the tightness of the money market, other banks found themselves able to increase their loans to businesses and individuals by 27 per cent in real terms. Real cash balances increased too, rising by 16 per cent between the first half of 1948 and the first half of 1950. A comparison of the increase in average monthly real cash balances and the changes in the federal cash budget between the two years 1948 and 1950 shows that the former was more than double the latter, i.e., real cash balances increased by 865 million pesos against a 413 million peso change in the cash budget. The increase in domestic loans to business and individuals

TABLE 9. MEXICAN REAL CASH BALANCES AND BANK CREDITS, 1948–50[1]

(In millions of 1948 pesos[2])

	1948		1949		1950	
	Jan–Jun	Year	Jan–Jun	Year	Jan–Jun	Year
Real cash balances[3]	3,805	3,967	4,085	4,219	4,391	4,832
Domestic assets of the Bank of Mexico						
Securities of the Federal Government	946	1,066	1,338	1,553	1,613	1,542
Bank securities	261	247	259	269	225	211
Securities of businesses and individuals	155	161	217	244	254	240
Loans to banks	127	127	101	76	26	21
Short-term paper and rediscounts	695	713	688	422	189	173
Assets of other banks						
Domestic loans to Government	197	191	176	181	192	233
Domestic loans to business and individuals	1,351	1,444	1,584	1,640	1,713	1,841
Cash	812	798	741	761	839	1,009

[1] Averages of end of month figures. Figures for assets of the Bank of Mexico are based on data from Banco de Mexico, S. A., *Annual Report, Twenty-Ninth Ordinary General Meeting of Stockholders* (Mexico, D. F., 1951), Tables 19 and 20; those for assets of other banks are based on data from International Monetary Fund, *International Financial Statistics*.

[2] Deflated by index (1948 = 100) of retail prices in Mexico City.

[3] Currency, demand deposits, and time deposits.

by banks other than the Bank of Mexico, 397 million pesos, was slightly less than the change in the cash budget. (All figures are in 1948 pesos.)

In addition to offsetting the anti-inflationary influence of the federal cash surplus, the expansion in bank credit and in real cash balances reduced the "absolute price effects" of the devaluations that would otherwise have resulted. "Absolute price effects" may be described as those which depend on the general price level or changes in that level, and which would occur even if all prices were to change proportionally. These price effects usually depend on irrational behavior, on imperfections in the operation of the economic system, or on the inflexibility of the money supply. Since the money supply in Mexico was permitted to expand, the impact of the devaluations on the domestic economy and on imports was reduced. If a devaluation is to reduce a trade deficit, the relation of consumption and investment to income must be altered, for, except temporarily by drawing on stocks, it is impossible simultaneously to consume more domestic goods and produce less domestic goods for home consumption. A change in relative prices cannot bring about a change in the relation of consumption and investment to income if all individuals respond only to relative prices. Only if some individuals respond to the

general level of prices can the necessary change in the relation be affected. If there are no absolute price effects accompanying a devaluation, the devaluation will have no effect on the trade deficit.[17]

Since Mexican monetary and fiscal policies together appear to have exercised little significant influence upon imports, the differences between actual and estimated imports, indicated above, may be taken as estimates of the effects of the devaluations on imports. If the credit expansion materially reduced the absolute price effects attending the devaluations, these estimates indeed probably understate these effects. The available data, however, throw little light on the possible magnitude of these influences, so that the estimates are probably as reasonable as can be obtained.

Summary

The effects upon the main components—i.e., foreign travel, imports, etc.—of the Mexican goods and services account with the United States of the measures taken by the Mexican Government to attain balance in its international exchange accounts are summarized in Table 10. In order

TABLE 10. ESTIMATES OF EFFECTS OF IMPORT PROHIBITIONS AND DEVALUATIONS ON THE MEXICAN-U.S. GOODS AND SERVICES ACCOUNT[1]

(Annual rates in millions of U.S. dollars)

	Effects of		
	Import prohibitions	Devaluation of 1948	Devaluations of 1948 and 1949 combined
Imports	+65	+22	+77
Exports	—	+34	+37
Foreign travel	—	+14	+28
Investment income	—	+12	+18
Other services	—	—	—
Total	+65	+82	+160

[1] Plus sign indicates a reduction in payments (imports and investment income) or an increase in receipts (exports and foreign travel).

that the effects of the devaluations on the various components may be summed, the figures in the table are given in current values and not in real terms. They represent, therefore, the values of the changes in the volume of exports and the volume of imports. When the values of exports of metals and manufactures are revalued by the change in metal prices,

[17] This concept has been developed in an unpublished paper by Sidney S. Alexander. See also Sidney S. Alexander, "Effects of a Devaluation on a Trade Balance," International Monetary Fund, *Staff Papers*, Vol. II, pp. 263–78 (April 1952).

the changes in exports—discussed above—of $31 million and $44 million (in 1948 values) after the 1948 and 1949 devaluations become $34 million and $37 million, as shown in Table 10. Similarly, the changes of $23 million and $88 million in imports (in 1948 values) revalued by the change in U.S. export prices become $22 million and $77 million.

The estimates in Table 10 show that the corrective effects of the devaluations were greater than those of the prohibitions. This was to be expected, since the devaluations affected all components of the goods and services account while the effects of the restrictions were practically limited to the import component. However, both prohibitions and devaluations could reasonably have been expected to have been more effective. The influence of the prohibitions was lessened by poor enforcement and the import of parts for the local assembly in Mexico of manufactured goods. The devaluations could probably have curtailed imports even more than they did if the expansion in bank credit had been limited and the absolute price effects accompanying a devaluation had been allowed greater influence.

The 1951 Improvement in the Danish Balance of Payments

S. C. Tsiang*

THE BALANCE OF PAYMENTS of Denmark was in a precarious position in 1950. In October it was apparent that the year's deficit on goods and services account would exceed DKr 800 million; and it seemed that the deficit for 1951 would be even greater, in view of the sharp increase in the prices of raw materials and other imports, for which domestic demand was likely to be inelastic.

The Government, with the agreement of the major opposition parties, embarked in November 1950 upon a general program of anti-inflationary fiscal measures in order to cope with the worsening international payments situation. The program included additional taxation on consumption and incomes and forced savings which required graduated contributions estimated to amount in all to DKr 140 million. The Danish National Bank had raised its discount rate to 5 per cent in November, after having already raised it from 3½ to 4½ per cent in July; and the commercial banks also had raised their interest rates.

In 1951, despite a further worsening of the terms of trade, the balance of payments showed considerable improvement. The deficit on goods and services account, which was DKr 829 million in 1950, was reduced to DKr 337 million in 1951. The improvement—which fell within the range of DKr 300–500 million estimated by the Danish Government in November 1950 when its anti-inflationary program was announced—was particularly marked in the second half of the year, when the goods and services account showed a slight surplus (DKr 80 million), compared with a deficit (DKr 288 million) in the second half of 1950. The purpose of this paper is to examine the improvement that is attributable to the anti-inflationary policy followed by the authorities, and the improvement due to other factors.

Balance of Payments

The detailed record of the balance of payments (Table 1) shows that about half of the improvement in the goods and services account for

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TABLE 1. DENMARK'S BALANCE OF PAYMENTS

(In millions of Danish kroner)

	1950			1951		
	Jan-Jun	Jul-Dec	Entire year	Jan-Jun	Jul-Dec	Entire year
A. Goods and services						
Exports, f.o.b.....	2,111	2,634	4,745	2,875	3,114	5,989
Imports, f.o.b.[1]....	−2,584	−2,862	−5,446	−3,300	−3,161	−6,461
Trade balance.	−473	−228	−701	−425	−47	−472
Foreign travel.....	−30	−30	−60	−45	−15	−60
Transportation....	−10	−16	−26	65	160	225
Investment income	−50	−37	−87	−42	−38	−80
Other services.....	22	23	45	30	20	50
Total.....	−541	−288	−829	−417	80	−337
B. Private capital movements[2].....	108	19	127	121	123	244
C. Special official financing[3].....	−17	−30	−47	−120	−46	−166
D. Surplus or deficit..	−450	−299	−749	−416	157	−259
E. Compensatory official financing						
ECA.....	218	195	413	233	188	421
EPU.....	232	104	236	183	−345	82
Other.....			100			−244
Total.....	450	299	749	416	−157	259

[1] Including nonmonetary gold.
[2] Including errors and omissions.
[3] Primarily amortization.

Sources: Data for the years are from International Monetary Fund, *Balance of Payments Yearbook*, Vol. 4, p. 88; those for the first half of each year are from IMF, *International Financial Statistics*, May issues of 1951 and 1952; figures for the second halves of the years were obtained by deducting the balances for first halves from the full year balances.

1951 was due to the increase in net freight receipts (transportation), which changed from a deficit of DKr 26 million in 1950 to a surplus of DKr 225 million in 1951. Since this increase in net freight receipts was mainly the result of sharp rises in world freight rates and the increased tonnage of the Danish merchant fleet, this part of the improvement was independent of the domestic anti-inflationary policy.

The trade deficit decreased by DKr 229 million between 1950 and 1951. Since the improvement took place almost entirely in the second half of 1951, and since there is a seasonal pattern in the Danish trade balance, it is pertinent to compare the balance of the second half of 1951 with that of the second half of 1950. The improvement between these two half years amounted to DKr 181 million, the deficit declining from DKr 228 million to only DKr 47 million.

For 1951 as a whole, price movements in foreign markets do not appear

to have been favorable to Denmark's terms of trade. The terms of trade computed on the basis of unit values of imports and exports deteriorated by some 11 per cent in 1951 (Table 2). Only in the last quarter was there

TABLE 2. TERMS OF TRADE FOR DENMARK, 1949–51[1]

(1948 = 100)

		1950					1951				
	1949	I	II	III	IV	Year	I	II	III	IV	Year
Based upon											
Unit values.....	105	97	93	90	93	93	90	76	77	88	83
Price indices.....	100	90	86	83	77	84	71	64	65	70	68

[1] Based on data from International Monetary Fund, *International Financial Statistics*.

some recovery, on account of the upward revision of contract prices for exports to the United Kingdom and the diversion of a part of Denmark's dairy and meat exports to other higher-priced markets in continental Europe. However, the terms of trade for that quarter computed on the basis of unit values was still 5 per cent below those for either the year 1950 or the fourth quarter of 1950.[1] Thus, although the more favorable prices which Denmark was able to obtain for her agricultural exports in the last quarter of 1951 no doubt contributed to the improvement in the trade balance in that quarter, external price movements, in general, appear to have operated against any improvement of the trade balance, whether a comparison is made between 1951 and 1950, or even between the last quarters of the two years. The improvement between 1950 and 1951 was due entirely to changes in the volume of exports and of imports: exports increased by 12 per cent and imports fell by 6 per cent (Table 3). The improvement would have been much greater if the average unit values of exports and imports had remained at their 1950 levels.

National Accounts

To understand the favorable change in the trade balance, it is necessary to find out how the changes in the volume of imports and exports occurred. In order to obtain an over-all view of the woods without getting lost among the trees, it will be best, first, to examine the national accounts of Denmark for 1950 and 1951. According to official estimates, the gross national product of Denmark in real terms remained practically unchanged from 1950 to 1951 (Table 4). Thus, an improvement in the

[1] If the terms of trade are computed on the basis of import and export price indices rather than unit value indices, those for the fourth quarter of 1951 are 17 per cent below the average for 1950 and 9 per cent below those for the fourth quarter of 1950.

TABLE 3. FOREIGN TRADE OF DENMARK, 1950 AND 1951[1]

(Value figures are monthly averages in millions of Danish kroner)

	1950					1951				
	I	II	III	IV	Year	I	II	III	IV	Year
At current prices										
Exports (f. o. b.)	332	348	396	451	383	451	476	449	553	482
Imports (c.i.f.)	486	444	503	536	491	545	645	572	570	583
Deficit (−) or surplus	−154	−96	−107	−85	−108	−94	−169	−123	−17	−101
At average 1950 unit values										
Exports (f.o.b.)	322	355	400	447	383	417	440	403	442	425
Imports (c.i.f.)	491	452	489	531	491	489	487	427	440	461
Deficit (−) or surplus	−169	−97	−89	−84	−108	−72	−47	−24	2	−36
Index of volume (*1948 = 100*)										
Exports	142	156	176	196	173	188	197	182	199	192
Imports	160	148	160	173	163	162	162	140	145	153

[1] Exports and imports in this table do not include transit trade, which is included in Table 1. Furthermore, imports are valued c.i.f. The improvement in the trade balance in 1951 shown in this table is much smaller than the improvement shown in Table 1 because of the fact that the increases in freight charges in 1951 were deducted from the import figures in Table 1, but not from the import figures in this table.

The table is based on data from International Monetary Fund, *International Financial Statistics*.

TABLE 4. GROSS NATIONAL PRODUCT AND EXPENDITURE OF DENMARK[1]

(In billions of Danish kroner)

	1950	1951	
		At 1950 prices	At 1951 prices
Gross national product at market prices	23.6	23.4	25.9
Imports, f.o.b.	5.4	5.0	6.4
Total	29.0	28.4	32.3
Exports (commodity plus net invisible)	4.6	5.2	6.1
Total available supply	24.4	23.2	26.2
Private consumption	16.0	15.2	17.2
Public consumption	2.4	2.6	2.8
Gross investment[2] excluding increase in inventory	5.2	5.1	5.9
Increase in inventory	0.8	0.3	0.3
Total gross national expenditure	24.4	23.2	26.2

[1] Based on data from Finansdepartement, *Økonomisk Årsoversigt*, May 1952, and International Monetary Fund, *International Financial Statistics*.
[2] Including public investment.

trade balance could occur only with a corresponding contraction of domestic real expenditure (i.e., real consumption and domestic real investment). Private consumption and gross investment in fixed capital as well as in inventory all showed some decreases in real terms. National real expenditure decreased by as much as DKr 1.2 billion at 1950 prices, or approximately 5 per cent of the gross national product in either 1950 or 1951.

The question is whether the contraction in national expenditure in real terms was the cause of the improvement in the balance of visible and invisible trade or whether the causal relation was the other way round. It is extremely unlikely that the improvement in the trade balance was the cause which, by forcing prices up, compelled national expenditure in real terms to contract. For if that had been the case, the inflationary impact of the improved trade balance would not only have exerted an upward pressure on prices but would also have tended to increase employment and production. In fact, however, the index of industrial production remained practically the same in 1951 as in 1950. In addition, whereas the improvement in the trade balance took place chiefly in the second half of 1951, the industrial production index in that half year fell not only 10 per cent below the level of the first half of the year but also 4 per cent below that of the corresponding half of 1950. Unemployment, also, in 1951 as a whole was slightly greater than in

1950, and the increase was especially marked in the second half of 1951, when the number unemployed was 9.5 per cent of the working population, compared with 7.6 per cent in the second half of 1950 (Table 5).

TABLE 5. INDUSTRIAL PRODUCTION AND UNEMPLOYMENT IN DENMARK, 1950 AND 1951[1]

	1950			1951		
	First half	Second half	Entire year	First half	Second half	Entire year
Industrial production (*1948 = 100*)	120	118	119	126	114	120
Unemployment (*per cent of union membership*)	9.6	7.6	8.7	9.9	9.5	9.7

[1] Based on data from International Monetary Fund, *International Financial Statistics*.

These facts do not seem to indicate that an expansionary process was at work. It is more plausible to suppose that the contraction of real national expenditure occurred, not as a result of the improvement in the foreign balance but in response to a combination of internal fiscal and monetary measures and other independent causes; and that the improvement in the trade balance, which was at least partly induced by the reduction of domestic real expenditure, was not sufficient to offset completely the internal contraction, which is usually the case if home trade goods cannot be readily switched to exports.

Therefore, to understand the improvement in the balance of trade of Denmark, it is important to see how the contraction of real national expenditure occurred at the same time that money income and prices were expanding.[2]

Fiscal Policy

The first factor to be examined as contributing to the reduction of national expenditure is the fiscal policy of the Government (both central and local). As shown in Table 6, revenues of central and local governments, less subsidies and transfer payments, increased by DKr 500 million between 1950 and 1951. Part of the increase must have been the result of price increases. Deflated by the rise in the cost of living, the increase in net government revenue in 1951 at 1950 prices of consumers' goods amounted to no more than DKr 130 million. This is far from being adequate to account for the decrease of some DKr 800 million in real consumption expenditure at 1950 prices. The proceeds of forced savings

[2] Gross national product increased by approximately 11 per cent from 1950 to 1951, and wholesale prices by 17 per cent from December 1950 to December 1951.

TABLE 6. DANISH GOVERNMENT FINANCES[1]

(In millions of Danish kroner)

	1949	1950	1951
Direct personal taxes, real estate taxes, corporation taxes, etc.	2,300	2,249	2,672
Social security contributions and fees	223	226	240
Fees and fines	187	206	220
Indirect taxes	1,598	1,694	1,856
Gross income from government enterprises and property	583	627	626
Total revenue	4,891	5,002	5,614
Subsidies	287	137	159
Social security benefits, etc.	1,237	1,294	1,381
Interest on public debt	127	120	122
Total subsidies and transfer payments	1,651	1,551	1,662
Total revenue, less subsidies and transfer payments	3,240	3,451	3,952
Government consumption	2,232	2,400	2,777
Government gross savings	1,008	1,051	1,175
Government gross investment	820	915	960
Government gross savings less gross investment[2]	188	136	215

[1] Including both central and local governments. Based on data from Statistiske Departement, *Statistiske Efterretninger*.

[2] Forced savings are not included.

in 1951 were probably of the order of DKr 100 million, but their curtailing effect upon private consumption was perhaps a mere fraction of that amount, since forced savings imposed by the Government can be met by the public by a diversion of the regular flow of savings and by past accumulations of savings. The net deflationary effect of the fiscal policy of the Government was even smaller than these figures would indicate, for government expenditure increased almost *pari passu* with the increase in revenue. Thus, the net surplus of the Government was greater in 1951 than in 1950 by only DKr 79 million, which was not sufficient to cause a net contraction in aggregate real national expenditure totaling DKr 1.2 billion at 1950 prices. This conclusion would still hold even when allowance is made for the proceeds of forced savings. For the contractionary effect of forced savings in 1951 upon private expenditure (including investment as well as consumption) was rendered very dubious by the fact that the proceeds of forced savings were all deposited with private banks, which would, in all probability, lend the greater part of them to their customers since forced savings deposits are not repayable until 1958.

Change in Expectations

Clearly, there must have been other causes at work to produce the contraction of national real expenditure that actually occurred. Most important of these were the termination and reversal of the buying spree on the part of consumers and of the speculative stockpiling on the part of businessmen, as the fears of general war and of shortages of essential goods were dissipated and the rapid post-Korea rise of raw material prices came to an end.

The statistics of retail sales (Table 7) show that the upsurge of buying after the outbreak of the Korean conflict petered out in the first half of

TABLE 7. RETAIL SALES IN DENMARK, 1950 AND 1951[1]

	1950	1951	1950				1951			
			I	II	III	IV	I	II	III	IV
	(*1949 = 100*)		(*corresponding quarter of 1949 = 100*)							
Apparel	120	115	116	113	136	117	131	119	113	101
Food	107	111	108	106	108	107	116	114	111	115
Total	112	115	110	109	117	111	122	117	113	110
Total (deflated)[2]	106	98	109	106	112	102	110	102	93	91

[1] Based on data from United Nations, *Monthly Bulletin of Statistics*.
[2] Deflated by the increase in the cost of living over 1949 or over the corresponding quarter of 1949.

1951 and turned into a recession in the second half, as far as the physical volume of sales was concerned. The recession of consumer's demand was particularly severe in the clothing sector, where the upsurge had been particularly marked. Thus, the decline in real consumption in 1951, especially in the second half of the year, was to some extent a consequence of the excess purchases in the preceding year and in early 1951, and of a change in expectations about supply conditions.

The sharp decline of inventory investment in 1951, while other investment remained nearly constant in real terms, was probably due to similar factors. Investment in nonagricultural inventories had been 136 per cent (in constant value) greater in 1950 than in 1949 (Table 8). Such a high rate of accumulation was clearly due to speculative stockpiling and could not be expected to be maintained. Therefore, when the rapid rise in the prices of primary products began to taper off in the second quarter of 1951, and the prices of some important raw materials, e.g., textile materials, tin, rubber, etc., turned downward from the peaks reached during the post-Korea scramble, it was quite natural that speculative stockpiling policies should be discontinued. It seems likely that the 46 per cent decrease in the volume of investment in nonagricultural inventories was largely due to such a change in policies.

TABLE 8. GROSS INVESTMENT IN DENMARK, 1949–51[1]

(In millions of Danish kroner)

	1949	1950		1951	
		At current prices	At 1949 prices	At current prices	At 1949 prices
Building and construction	2,105	2,520	2,370	3,030	2,370
Machinery, transportation equipment (excluding ships), etc.	1,960	2,400	2,260	2,670	2,245
Ships	240	255	240	265	225
Total	4,305	5,175	4,870	5,965	4,840
Military and civil defense construction	20	25	25	65	55
Total civilian gross investment excluding changes in inventory and livestock	4,285	5,150	4,845	5,900	4,785
Investment in nonagricultural inventories	275	750	650	550	350
Changes in livestock	185	85	80	−155	−140
Investment in agricultural inventories	−75	—	—	−105	−70
Total civilian gross investment	4,670	5,985	5,575	6,190	4,925

[1] Based on data from Statistiske Departement, *Statistiske Efterretninger*.

Investment in livestock fell so sharply in 1951 that there was actually a net disinvestment of DKr 155 million. This is alleged to have been due largely to the fact that the sharp rise in the prices of imported feedstuffs relative to the export prices of animal products made it unprofitable to maintain large herds supported by imported fodder. There was thus a tendency to cut down the stock of cattle in order to diminish reliance upon imported feedstuffs. It will be shown in a later section that this had a direct influence not only upon imports of fodder in 1951 but also upon exports of animal products.

Monetary Policy

The independent causes listed above of the declines in particular lines of expenditure might by themselves be insufficient to explain the contraction of aggregate national expenditure. With no lack of investment opportunities, the contraction in one line of expenditure (say, investment in inventory) might release funds for expenditure in other lines (say, investment in fixed capital), if there were no change in liquidity or in the availability of credit in real terms. If there is to be a net improvement in the trade balance, however, there must be a corresponding

increase in the margin of current national income or product that is not spent on any lines of expenditure.[3]

The monetary and credit situation of Denmark probably played a significant part in ensuring the net increase in the unspent margin (or "hoarding") of the national income during 1951. As may be seen from Table 9, there was a steady absorption of cash by the Danish National

TABLE 9. CHANGES IN MONEY SUPPLY THROUGH THE DANISH NATIONAL BANK, 1950–51[1]

(In millions of Danish kroner)

	1950				1951			
	Jan–Jun	Jul–Sep	Oct–Dec	Entire year	Jan–Jun	Jul–Sep	Oct–Dec	Entire year
Net changes in government accounts	+182	+109	+78	+369	+305	+57	+182	+544
Deposits under "Piece Goods Scheme"	—	—	—	—	−199	−35	−28	−262
Payments in respect of ECA aid					−203	−97	−105	−405
Improvement in foreign exchange position of the National Bank	−460	−226	−49	−736				
					−84	+16	+267	+199
Other items	+75	+13	−28	+60	+63	−2	−11	+50
Total	−204	−104	+1	−307	−118	−61	+305	+126

[1] Minus sign indicates inflow to the National Bank; plus sign indicates outflow from the Bank. Based on data from Danmarks Nationalbank, *Report and Accounts for 1951*; and Finansdepartement, *Economic Survey of Denmark, Extract of Economic Report, 1951*.

Bank during the first three quarters of 1951. The Government, however, in spite of a surplus of revenue over expenditure, had been continuously putting more money into circulation; in addition to its own expenditure, it had continued to draw from its accounts with the National Bank to grant loans in aid of private investments (particularly construction) and to redeem some of the short-term issues in the national debt.[4] According to the annual report of the Danish National Bank, the Government, through its accounts with the National Bank, increased the money supply, on balance, by DKr 544 million in 1951, compared with an increase of DKr 369 million in 1950. The addition through government

[3] See Sidney S. Alexander, "Effects of a Devaluation on a Trade Balance", *Staff Papers*, Vol. II, pp. 263–78 (April 1952).

[4] Danmarks Nationalbank, *Report and Accounts for 1951*, p. 20.

accounts, however, was more than offset by the blocking of kroner proceeds of ECA aid—which in 1951 accounted for a DKr 405 million decrease in the money supply—and by the effects of the system of compulsory deposits in connection with textiles and certain other imports. This so-called "Piece Goods Scheme", which was introduced for certain textile goods in February 1951 and was later extended to certain other imports, required importers to make advance deposits varying from 150 to 180 per cent of the value of the goods. These deposits were placed with the National Bank through an authorized bank as intermediary, two thirds of the amount deposited being released after three months and one third after twelve months. During 1951, these advance deposits caused a reduction of DKr 262 million in the money supply.

The absorption of cash by the National Bank during the first three quarters of 1951 amounted to DKr 179 million. Only in the last quarter, owing to the concurrence of a large government net disbursement and a huge surplus in the balance of payments, was there a large outflow of cash from the National Bank.

The redundant money supply created in Denmark during the occupation had already been successfully mopped up by 1949. The ratio of gross national product, in money terms, to the aggregate money supply, at 2.7 in 1948, was close to the prewar (1937–39) average of 2.8; and from 1949 onward the ratio rose steadily above the prewar level. Thus the continuous reduction of the cash supply from the National Bank in the first three quarters of 1951, which followed upon a previous reduction of DKr 307 million in 1950, and which took place in the face of substantial increases in prices and money incomes caused by the rise in prices of imported raw materials and by the wage-price spiral, naturally created a great liquidity scarcity and credit stringency.

The cash reserves of the commercial banks and other monetary institutions were reduced while the demand for credit increased because of the rise in price levels, and the aggregate money supply fell while the demand for transaction balances rose (Tables 10 and 11). Commercial and savings banks were, therefore, affected by liquidity stringency to a quite unusual extent. Furthermore, the National Bank made it known that it would not give support to these banks. In October 1950, it even stopped giving new promises to rediscount the building loans granted by the commercial banks and guaranteed by the Government, a function it had been performing since the fall of 1948. It was not until the end of August 1951 that the Bank, in a letter to the Royal Bank Commissioner,[5] declared that "subject to the condition that no increase is made in the

[5] Letter from the National Bank of Denmark to the Royal Bank Commissioner, the Rt. Hon. Ove Weikop, M.P., Kt., reproduced on p. 36, Danmarks Nationalbank, *Report and Accounts for 1951*.

total supply of money,[6] the National Bank will for the time being be prepared to promise to rediscount building loans granted by the commercial banks to such an extent that the total amount covered by such promises may be maintained at the level to which it was reduced as at June 30th, 1951".

TABLE 10. PRINCIPAL ASSET AND LIABILITY ITEMS OF COMMERCIAL BANKS AND LARGER SAVINGS BANKS IN DENMARK, 1947–51[1]

(In millions of Danish kroner)

	1947	1948	1949	1950	1951 I	1951 II	1951 III	1951 IV
Assets								
Cash	1,709	1,084	1,118	831	763	743	737	879
Securities	3,532	3,297	2,962	2,937	2,821	2,777	2,704	2,613
Credits to business and individuals	5,179	6,090	6,712	7,423	7,665	7,865	7,945	7,960
Liabilities								
Deposit money	5,255	4,830	4,525	4,434	4,392	4,440	4,335	4,421
Time deposits	4,184	4,666	5,203	5,619	5,731	5,785	5,808	5,713

[1] Data as of end of period indicated.
Sources: International Monetary Fund, *International Financial Statistics*; Statistiske Departement, *Statistiske Efterretninger*.

TABLE 11. MONEY SUPPLY IN DENMARK, 1949–51[1]

(In millions of Danish kroner)

	1949	1950	1951 March	1951 June	1951 Sept.	1951 Dec.
Currency	1,549	1,631	1,533	1,541	1,506	1,741
Deposit money	4,896	4,821	4,784	4,840	4,681	4,817
Total	6,445	6,452	6,317	6,381	6,187	6,558

[1] Data as of end of period indicated.
Source: International Monetary Fund, *International Financial Statistics*.

Since facilities for rediscounting at the National Bank were restricted, the commercial banks were obliged to refrain from reinvesting the proceeds from maturing bonds, and to sell bonds to the public. Consequently, the yield on government bonds rose steadily, from 4.84 per cent in December 1950 to a peak of 5.45 per cent in September 1951. Far more important, however, in its effect upon investment was the fact that private banks were obliged, by their reduced cash reserves, to resort to strict credit rationing and to refuse credits to new customers. An idea

[6] Total supply of money is defined in this connection to mean the sum of the note circulation of the National Bank, the folio deposits of the banks with the National Bank, and Treasury bills in circulation.

of the extent to which credit rationing was enforced is provided by the large gaps that existed from time to time between the rates of interest that borrowers were willing to pay and the conventional rates that banks charged for their loans.

Although Table 10 shows that credit to business and individuals in money terms continued to increase slightly during 1951, its purchasing power over goods and services actually was reduced sharply. If the quarterly figures of bank credit in 1951 are deflated by the increase in wholesale prices, it is seen that credit extensions fell from DKr 7,423 million at the end of 1950 to DKr 6,800 million at the end of 1951.

This credit stringency was no doubt chiefly responsible for the slight reduction (or at least the failure to increase) in 1951 of private investment in fixed capital in real terms, in spite of the sharp decrease of private investment in inventory. Indeed, it might also have been partly responsible for the large reduction in investment in inventory (since this type of investment is usually most dependent upon bank credit), even though the chief cause of its decline was undoubtedly the cessation of speculative stockpiling as a result of changed price expectation and the fall in the volume of sales in consumption industries.

Causes of Changes in Exports and Imports

The increase during 1951 in the volume of exports of bacon, meat, and cattle[7] was due largely to the fact that Danish farmers reduced the numbers of livestock, owing to the relative rise in the prices of imported fodder. On the other hand, the export of dairy products seems to have suffered from the effect of derationing which increased domestic consumption of these products. The volume of butter exports decreased by some 10 per cent and that of eggs by some 16 per cent. Thus, on balance, the total volume of exports of agricultural products in 1951 was probably affected to only a minor extent.

The volume of exports of manufactured products, however, is estimated to have increased by 25–30 per cent over the 1950 volume.[8] It is true that part of the increase was probably due to factors quite independent of the domestic situation. For instance, the increase in the export of ships, from 47,000 gross registered tons in 1950 to 53,000 tons in 1951, was probably the response to increased orders received several years earlier. However, Denmark is a small country exporting to a world market which in 1951 was still essentially a sellers' market. On the whole, the aggregate volume of Denmark's exports would depend largely upon

[7] Bacon exports increased by approximately 8 per cent and meat exports by 17 per cent in weight.

[8] Danmarks Nationalbank, *Report and Accounts for 1951*, p. 7.

her capacity to provide the exportable goods. Since industrial production in Denmark remained practically the same in 1951 as in 1950, there is a strong presumption that the reduction of the pressure of domestic demand was a significant factor in increasing the volume of industrial exports.

The changes in the quantities of imports of different categories should also be examined in the light of the changes in the different lines of national expenditures. A rough estimate of changes in the volume of major groups of imports can be obtained by deflating the value of the imports by an appropriate unit value or price index (Table 12).[9]

TABLE 12. ESTIMATED CHANGES FROM 1950 TO 1951 IN THE VOLUME OF IMPORTS INTO DENMARK, BY MAJOR GROUPS

Group	Reported Value of Imports[1] (*million kroner*)		1951 Imports at 1950 Unit Values or Prices[2] (*million kroner*)	Estimated Percentage Change in Volume, 1950 to 1951
	1950	1951		
Total	5,890	6,993	5,550	−6
Raw materials for industrial production	2,424	2,995	2,270	−6
Raw materials for agricultural production	601	650	520	−13
Fuel	1,016	1,281	1,020	0
Capital goods	694	814	735	+5
Consumers' goods	1,155	1,253	1,035	−10

[1] From Statistiske Departement, *Vareomsaetningen med Udlandet i December 1951*.

[2] See text footnote 9.

The decline in imports of consumers' goods in constant value units, shown in Table 12, is in keeping with the fact that the most important contraction in 1951 of Danish national expenditure in real terms was in private consumption, which fell by approximately DKr 0.8 billion at 1950 prices (see Table 4). Although the drop in imports of agricultural

[9] The value of imports of raw materials for industrial production has been deflated by wholesale prices of raw materials for other purposes than food production in Denmark; the increase in these prices happens to coincide closely with the increase in the average value of imports of raw materials for industrial production in the United Kingdom. The value of imports of raw materials for agricultural production has been deflated by the wholesale prices of raw materials for food production in Denmark. The value of imports of fuel has been deflated by the index of the unit value of fuel imports for Norway, which buys from abroad approximately the same types of fuel that are imported by Denmark. Imports of capital goods have been deflated by the index of the average value of exports of metals and engineering products of the United Kingdom. Imports of consumers' goods have been deflated by the index of the average value of textile products and other consumption types of exports of the United Kingdom. The weighted average of the indices used corresponds quite closely to the Danish official index of the unit value of total imports.

raw materials, which consisted mainly of feedstuffs, was probably due in part to the good crop in 1951, it was also, as pointed out above, due partly to the rise in the prices of feedstuffs relative to the export prices of animal products, which induced Danish farmers to reduce their herds. It was therefore partly a reflection of the disinvestment in livestock and in agricultural inventories (see Table 8).

Since industrial production in 1951 as a whole was practically the same as in 1950, the 6 per cent drop in the volume of imports of raw materials must have resulted largely from the decrease in investment in inventories (Table 8). The most important decrease among raw material imports was that of spinning materials, which dropped no less than 20 per cent in tonnage. No doubt this was caused by two developments: (1) textile production had suffered most from the recession of consumers' demand from the previous buying spree, and (2) the sharp fall in world prices of textile materials after the second quarter of 1951 probably put an end to the speculative stockpiling by businessmen. That capital goods were the only group of imports which increased in volume during 1951 is in keeping with the fact that investment in capital equipment at home hardly changed its pace, in real terms, during the year.

Import Restrictions

The lack of adequate sectional price indices of imports and of home-produced substitutes makes it impossible to obtain even a rough idea of the significance of the changes in relative prices and price elasticities of demands for various groups of imports. This study therefore must neglect completely this important aspect.

There remains the question of the effect of changes in restrictions on imports. It appears that import restrictions had been relaxed, rather than intensified, in 1951. In accordance with the request of the OEEC, Denmark had extended liberalization to a larger proportion than in 1950 of imports from the EPU countries. The percentage liberalized was increased to 58 per cent of imports from OEEC countries (excluding those imports that are subject to the new deposit system to be discussed below), from 53 per cent in the spring of 1950 and 51 per cent in the second half of that year. For textiles and certain other less important import items, the removal of quota restrictions was to some extent offset by the "Piece Goods Scheme" of compulsory advance deposits. It is unlikely, however, that this scheme is more restrictive in its immediate effect (i.e., apart from the general deflationary effect of temporarily blocking the deposits and thus taking them out of circulation) than the previous quota system. Immediately after the scheme was introduced, there was a large increase in the issuance of licenses for imports of textiles, and the volume imported increased considerably in the first and second quarters

of 1951, when compared with the second half of 1950. The imports of spinning materials averaged 3,700 metric tons per month in the first half of 1951, compared with 3,100 tons in the second half of 1950; and imports of yarn, thread, and yard goods averaged 3,700 tons per month compared with 2,800 tons in the second half of 1950. It was not until well into the third quarter of 1951 that imports of textiles began to decline considerably, and the drop in the fourth quarter was very sharp.

It seems, therefore, that the fall in imports of textiles in the second half of 1951 was due to the recession of consumers' demand and the changed price expectations of producers, rather than to the substitution of the "Piece Goods Scheme" for the previous quota system.

Summary

The preceding analysis indicates that several factors contributed significantly to the improvement of the Danish balance of payments in 1951:

(1) The remarkable increase in the freight earnings of Danish merchant shipping, which alone accounted for almost half of the net improvement in the current account of the balance of payments;

(2) The tapering off of inventory building, owing to the change in trends of world raw material prices and the dissipation of the fear of world war;

(3) The recession of consumers' demand after the buying spree in the second half of 1950;

(4) The additional taxation and forced saving introduced in November 1950, although the effect of this taxation on total demand and on liquidity was largely offset by the increase in government expenditures and the redemption of government debt held by the public;

(5) The contractionary policy, which sterilized the krone-counterpart of ERP aid and the compulsory deposits under the so-called "Piece Goods Scheme" and thus allowed the balance of payments deficit to be reflected in some contraction of the domestic money supply, despite the expansion due to government financial operations and the increased demand for money for transaction purposes resulting from the rise in prices and wages.

The International Monetary Fund, 1951-1952: A Selected Bibliography

Martin L. Loftus*

THE SELECTED REFERENCES presented in this bibliography cover books, pamphlets, reports, and periodical articles which describe the functions, organization, and activities of the International Monetary Fund. Publications on the various aspects of international economics are included only when they contain material relating specifically to the Fund. This is a continuation of the bibliography published in *Staff Papers*, Vol. I, No. 3 (April 1951). A few publications issued before 1951, which were not included in the previous bibliography, are also listed here. Although most of the Fund's official publications are included, this is not intended to be a complete bibliography of such publications.

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